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HISTORY OF SECONDARY EDUCATION

A Study in the Development of Liberal Education

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TO
JESSIE DAVIS KANDEL

EDITOR'S INTRODUCTION

One of the by-products of the World War has been the awakening of a national interest in education unparalleled in history. This new interest has been world-wide in extent, though most marked in those nations which have for long been at the front in the advance of what we know as our Western civilization. In a way this awakening has been in part a culmination of forces and influences that preceded the outbreak of the great conflict, but the World War and its after results brought many problems much more forcibly to public attention and made the demand for some adequate solution of them much more imperative. As a result, the leading world nations have, since the close of the war, been engaged in taking stock of their educational systems and in laying plans for their reorganization and extension to meet more adequately the needs of their peoples. So widespread has been this movement that it has begun to affect countries that have long been regarded as backward in their educational development.

Especially in the field of secondary education has there been marked activity in reorganization among the leading world nations. The problem has been so to reshape the older existing systems of secondary schools, designed originally to train an able governing class, to prepare ministers for their sacred calling, and to recruit leaders for the professions, that these systems may be made to satisfy the new demands of democracy for equality of opportunity, now stirring in every land. Admission to the secondary school, in European lands, has in the past been fenced about by barriers of birth, class, and wealth, and how to open these schools to those of humble birth and lowly social station but of outstanding talent, without at the same time opening them to the mediocrity of the crowd and in consequence degrading the quality of the instruction given, has been a problem that has elicited deep and serious thinking on the part of those responsible for the administration of the systems of state secondary education in the different European lands. In France, Germany, and England in particular has this problem been acute due to the firm determination of the leaders in these countries to retain sound scholarship and to preserve the secondary school for the capable and serious, while at the same time opening it to talent and capacity from whatever social level they may appear. This problem, of how to further the common interests of the democratic life and at the same time perpetuate leadership by training for the service of the State what has been so well termed an intellectual élite, has called for much serious study, and much in the line of reorganization of curricula and schools.

During the dozen years that have elapsed since the close of the great struggle, decisions have been reached upon enough of these problems to enable us to predict with safety at the present time the main lines of development during the coming generation. The present time, accordingly, is opportune for the publication of a general history of secondary education that will deal with the pressing problems of the present day in the light of their historical development. Such an historical statement of contemporary problems in secondary education, in four of the leading world nations, it is now the pleasure of the publishers and editor to present, in the present volume, from the pen of the accomplished and scholarly editor of the *International Yearbooks*, and Associate in the International Institute of Teachers College.

Ellwood P. Cubberley

PREFACE

The present volume appears at a period of crisis in the history of secondary education. The unrest is affecting almost every educational system in the world — that of a country like France, which has had the strongest tradition of culture, no less than that of the United States, which has in the last two decades attempted to establish a type of secondary education as free as possible from the trammels of tradition. Crises in secondary education are not, however, new in its history; the peculiar crisis at the present time is merely more intensified and complicated by the wider ramifications of the meaning of democracy and of an industrial civilization. The problem of the scope of secondary education, of what to teach, of the meaning of culture and of liberal education, is not a new phenomenon in the history of secondary education. The central tradition has, of course, been literary in character, but other considerations — the needs of various social classes, the demands of changing social and economic conditions, and the claim of new knowledge for admission — have always been in conflict with this tradition.

These changes in the concept of liberal education it has been the purpose of this volume to trace, and in greater detail to present an analysis of the factors that enter into the contemporary situation. The early history of secondary education is accordingly discussed briefly to the extent that it exercised an influence on its subsequent development, while increased attention is devoted to the progressive development of the main features that have contributed to the present unrest. It is no accident that the chapters on secondary education in the last century in England and the United States turned out to be richer and more colorful than those for the corresponding period in France and Germany. Indeed, for the student of educational administration, there is here an obvious lesson. The length of the chapters on England and the United States reflects the characteristics of educational systems in which there has been spontaneous interplay of social forces as contrasted with the centralized control in France and the German States, in which the history of education is punctuated by government legislation at longer or shorter intervals.

The present study of the history of secondary education, which is the outcome of a course on the subject given to the students at Teachers College, Columbia University, for the past fifteen years, is offered in the sincere conviction that progress in any social field, and especially in education, is possible only with a clear understanding of the factors that have brought about the present situation, and with an intelligent appreciation of the forces that must be analyzed in order to construct a new philosophy or a new body of principles to guide in its further reconstruction. To this end it is hoped that a study of secondary education, both in its historical setting and in the light of the problems at present confronting four of the leading intellectual and political centers of the world — France, Germany, England, and the United States — will contribute much.

I. L. Kandel

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HISTORY OF SECONDARY EDUCATION

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PART I

THE FOUNDATIONS OF SECONDARY EDUCATION

HISTORY OF SECONDARY EDUCATION

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CHAPTER I

GREEK EDUCATION

Significance of Greek education. At no period since the Renaissance has the need been greater than at the present for a thorough appreciation of the meaning and spirit of Greek education, as exemplified in both its theory and practice at Athens. For the world to-day, standing at the threshold of a new democracy and attempting to cope with the new problems imposed upon it by the changing conditions of the time, it is of supreme importance to secure an orientation of the means by which a people blessed with imaginative insight sought to meet the new conditions of their day. The Greeks, at the close of the fifth century, were faced with the task of solving the problems that resulted from an enlarging conception of democracy and from a wider world intercourse. These problems resolved themselves largely into the educational problem that the modern world must increasingly face of devising means for the highest development of human personality. The modern world touches the world of the Greeks at very few points, but their thoroughgoing interpretation of the meaning of a liberal education is the conception to which the world must inevitably return if the hopes of democracy are to be realized.

Twenty-five centuries have added little to the Greek analysis of the meaning of personality. While in modern times liberal education has been interpreted in terms of state service as in Germany, or of culture as in France, or of character as in England, or of citizenship as in America, or more generally in terms of subject-matter, the Greeks avoided such particularization and evolved a comprehensive interpretation that included all these and much besides. They sought to educate the whole man, and to afford scope for the free development of all his powers. Since this is the contribution of greatest importance in a consideration of the aims and purposes of secondary education, the present chapter will be confined to that period in Athenian history when this interpretation was formulated, with such references to preceding periods as may be necessary to elucidate the foundations upon which the fifth and fourth centuries were built.

Social progress and education. In the second half of the fifth century B.C., which coincided with the rise of a system of higher education, Athens had become the center of the Greek world. She had used her position as head of the Delian Confederacy to develop a policy of imperialism which increased her material prosperity and gave her the leadership in the Greek world, disputed only by Sparta. Her trade and commerce increased rapidly, and with this came an extensive intercourse with the Greeks in the East and the West. The growth of political power and material wealth was reflected in the beauty and magnificence of her public buildings, and in turn brought visitors and settlers from all parts of Greece, while the contact with new ideas and different customs inevitably affected a people already characterized by versatility and quickness of mind. "Because of the greatness of our city," says Pericles, in the "Funeral Oration," "the fruits of the whole earth flow in upon us; so that we enjoy the goods of other countries as freely as our own" — a statement as true of the spiritual as of the material goods to which he referred. Intellectual interest, already keen, was now spurred on to further inquiry and questioning, and a people by nature given to discussion found new and absorbing subjects for study in the throbbing life around it.

Citizenship and education. At the same time the political and social demands of the City-State were such as to require the full and active participation of every Athenian citizen. He might be called upon to serve his State as a soldier; he considered it his privilege and duty to vote in the assembly, whether on questions of local, imperial, or foreign policy; he stood an equal chance with his fellow citizens of being elected to office; he might sit on the juries and try legal actions, or his taste and judgment might be tested in deciding the merits of a tragedy or comedy. In addition as the head of his household he had duties towards his family; he participated in the religious ceremonials of his own home or of the State; and, finally, in spite of an economic system based largely on slave labor or on the activities of a resident foreign population, he followed his own vocation.

> We must think of ourselves as all trooping off from our regular employment, four times a month or more, to discuss foreign policy and vote budgets and bills in Parliament; as all going to a national theater twice annually and sitting three whole days to watch the tragedies and comedies of a contemporary Shakespeare; we must expect to find seated by us at Westminster or in the theater, our neighbors and fellow citizens from the Prime Minister to our butcher or grocer; we must not grumble (whether we are Territorials or not) at being suddenly asked to put on a uniform and go off to invade a foreign country. In short, we must imagine a many-sided, many-colored life, full of every kind of practical and intellectual interests. Then we shall get some idea of fifth century Athens.[1]

Under a social and political organization of this kind the individual exists only as he shares in the life of the State, and there could be no opposition between the fullest development of the individual and the claims of the State. A division of man into citizen, artisan, member of a denomination, head of a household, or into any other of the specialized activities of the modern world was unthinkable. The individual was regarded as only a citizen, and as such was expected to act for the common good. The conception of the State as an entity existing apart from the individuals composing it was equally impossible. The State or society, the two being indistinguishable, existed to make possible the good life; to guarantee the conditions for the spontaneous development of character. If the State is the individual writ large, it necessarily followed that the meaning of personality, of those qualities in the individual that make for the largest life was an important subject for consideration.

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[1] Livingstone, R. W. *The Greek Genius and its Meaning to Us*, p. 175. (Oxford, Clarendon Press, 1915.)

Meaning of personality. It was characteristic of the Greek analysis of personality that it was comprehensive, and that it included all those manifestations of the human spirit that make a man a useful member of society. There was an absence of the vagueness that attends the use of the word character in England or personality in America. It implied in a very real sense the harmonious development of the physical, moral, æsthetic, and intellectual qualities of the individual. The absence of any one of these qualities detracted from the ideal of excellence (*ἀρετή*), just as a happy sense of balance (*μηδὲν ἄγαν*) prevented the overdevelopment of one quality at the expense of the others. Not only must all these qualities exist side by side in the perfect individual, but each one implied the presence of the other, for, in the words of Pericles, the Athenian combined a love of beauty with simplicity, and intellectual culture with manliness. Thus physical development was pursued as much for the training in a sense of beauty and self-control as it was to secure that physical well-being which is the basis of intellectual pursuits. In the same way the intellectual quality implied not merely intellectual interests, but also good taste, judgment, and a sense of fitness.

The Greek analysis of personality is so fundamental that the world has never been able to add anything further to it, as, indeed, it has never since adequately appreciated the importance of securing the development of all the qualities in combination.

Each in turn has been overemphasized at one time or another; the exaggeration of the physical has led to athleticism, of the moral to asceticism and austerity, of the intellectual to scholasticism divorced from the realities of life, while the æsthetic element, whose presence saved the Greeks from all these defects, has either been neglected entirely or relegated to the background. It was because of the conception that all these qualities must be present together to round out a complete personality which could only find its fullest expression in public life that the Greeks were able to arrive at a definition of culture to cover all the activities proper to man. It followed, accordingly, that when they began to think consciously of the educational process, they approached it, not from the point of view of subject-matter or of discipline, but rather in terms of the needs of the individual as a member of society.

The ideal of individual happiness followed from this conception. There was a naïveté and a frankness in the expression of the ideal that appreciated equally the importance of the possession of material goods, as well as the cultivation of the spiritual; the one aspect was not minimized at the expense of the other. According to Aristotle:

> happiness may be defined as prosperity conjoined with virtue, or as independence of life, or as the pleasantest life conjoined with safety, or as an abundance of goods and slaves with the ability to preserve them and make a practical use of them; it would be generally admitted that happiness is one or more of these things. Such then being the definition of happiness, it follows that its constituent parts are nobility, the possession of many and excellent friends, wealth, a goodly and numerous family, and a happy old age; also such physical excellence as health, beauty, strength, stature, and athletic powers, and finally fame, honor, good fortune, and virtue.[1]

This definition summarizes the attitude toward life of the ordinary Greek individual. If he had health, a competence, family and friends, and above all repute or honor with his fellow citizens, he could feel assured that he was fulfilling his duty to himself and to society. Health implied not merely physical well-being but physical beauty and grace as well as strength; not only did the possession of these render his body a better and more serviceable instrument, but according to Plato outward beauty is the expression of beauty of the soul. Physical weakness and lack of grace were despised not merely because they were ugly, but on account of their distracting and debilitating effect on public activities proper to the individual. In the same way a competence was desirable because it freed the mind for higher pursuits.

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[1] Aristotle. *Rhet.*, 1360 B. Translated in Livingstone, *op. cit.*, p. 115.

Material possessions, however, did not lead the Greeks to underestimate the importance of intellectual pursuits. At the outbreak of the Peloponnesian War the Corinthians reminded the Spartans that the Athenians "spend their bodies ungrudgingly in their country's cause; their intellect they jealously husband to be employed in her service." [1] Further testimony to this quality is afforded by Pericles when he states, in the "Funeral Oration," that:

> We alone regard a man who takes no interest in public affairs, not as a harmless, but as a useless character; and if few of us are originators, we are all sound judges of a policy. The great impediment to action is, in our opinion, not discussion, but the want of that knowledge which is gained by discussion preparatory to action. For we have a peculiar power of thinking before we act and of acting too, whereas other men are courageous from ignorance but hesitate upon reflection.[2]

If they were fond of innovation and quick to devise plans, and adventurous beyond their power, as the Corinthians characterized the Athenians, they at least possessed those qualities that are essential to intellectual progress. The events that made

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[1] Thucydides, I, 70. Jowett's translation.

[2] *Ibid.*, II, 40.

Athens the center of the Greek world not only broadened the horizon of her citizens, but brought with them new means for satisfying their intellectual interests.

Early education. The educational equipment of the average Athenian, as furnished in the elementary stage up to the age of fourteen, included training in letters, music, and gymnastics, with the additional study of the state laws and some arithmetic. Drawing and painting appear to have been added in the fourth century. Letters and music were acquired under the *grammatistes* and the *citharistes*, and physical training in the *palæstra* or private gymnasium of the *paidotribes*. While all the schools were private, it is probable that they were under the public inspection of the *sophronistai*, whose particular function, however, was the moral supervision of the young men, or *epheboi*. For the present purpose an adequate summary of the primary system of education is presented by Plato:

> At a later stage (at about the age of seven) the parents send the child to teachers, and enjoin them to see to his manners even more than to his reading and music; and the teachers do as they are desired. And when the boy has learned his letters and is beginning to understand what is written, as before he understood only what was spoken, they put into his hands the works of great poets, which he reads at school; in these are contained many admonitions, and many tales, and praises, and encomia of ancient famous men, which he is required to learn by heart, in order that he may imitate or emulate them and desire to become like them. Then, again, the teachers of the lyre take similar care that their young disciple is temperate and gets into no mischief; and when they have taught him the use of the lyre they introduce him to the poems of other excellent poets, who are the lyric poets; and these they set to music, and make their harmonies and rhythms quite familiar to the children's souls, in order that they may learn to be more gentle, and harmonious, and rhythmical, and so more fitted for speech and action; for the life of man in every part has need of harmony and rhythm. Then they send them to the master of gymnastic, in order that their bodies may better minister to the virtuous mind, and that they may not be compelled through bodily weakness to play the coward in war

> or on any other occasion. This is what is done by those who have the means, and those who have the means are the rich; their children begin education soonest and leave off latest. When they have done with masters, the state again compels them to learn the laws, and live after the pattern which they furnish, and not after their own fancies.[1]

The adolescent period which intervened between the primary school stage and the age of eighteen, when the boy came of age, was admitted to citizenship, and entered upon his military training, was devoted to exercise in the public *gymnasia*. In this the poor as well as the rich participated, although the former were already occupied in learning a trade. An informal system of secondary education may have begun early in the Periclean age in advanced classes attached to the primary schools, but the real stimulus came with the formulation of new knowledge and the advent of a new type of teacher.

Higher education. Three factors contributed to the development of the intellectual era, during the second half of the fifth century: the centralization of the Greek world at Athens, the sense of individual power and the desire for distinction, and the success of the earlier sophists like Protagoras, Gorgias, Prodicus, and Hippias. While the main interests were at first in political and moral questions, in the place of the individual in society, and in the meaning of virtue, the subjects of study were gradually extended by teachers of lesser renown than those mentioned to embrace every field of human activity.

> Generals, cavalry officers, courtesans, painters, country gentlemen, aspiring or disappointed politicians, came to discuss their affairs with Socrates, and went away enlightened on subjects as various as house-building, painting, picnicking, operations of war, indigestion, and physical exercise.[2]

No subject that in any way appertained to the material and the spiritual life of the individual was considered too humble for investigation, and, with the demand, there came an ample supply of professors who claimed to offer guidance to those who sought it for the attainment of complete happiness. That the sophists have been much maligned does not need to be reiterated here. Their position can best be realized by remembering that they performed the function exercised in modern times by the press, the pulpit, the university professor, university extension lectures, tutorial classes, institutes and lyceums, popular encyclopedias, and such collections as the *Everyman's Library* and the *Home University Series*. The democratization of higher education must inevitably be exposed to the criticisms of the specialists. Charlatanism and imposture may hide themselves behind the success of sincere leaders, but their presence does not detract from the fact that broad intellectual interests did prevail.

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[1] Plato. *Protag.*, 326. Jowett's translation.

[2] Livingstone, *op. cit.*, p. 135.

> A hungry people cried to the sophists and they fed it with all manner of intellectual food. They wrote books for it on grammar, music, medicine, geometry, astronomy, tactics; they wrote on anything that could interest or instruct. But their main subject was the conduct of life. Go to them and you might learn "how to manage your home in the best way, and to be able to speak and act for the best in public life."[1]

The chief motive that inspired the learner, besides intellectual curiosity and the desire to learn something new, was not merely the acquisition of a culture that despises the mundane, but the search for enlightenment on the practical affairs of life. Crito, Cebes, and others, according to Xenophon, associated with Socrates "not that they might become popular speakers or successful barristers, but in order to grow into good and noble men and learn how rightly to conduct themselves to their household and servants, their relations and friends, their country and fellow countrymen."[1] At its best the movement represented the practical embodiment of Milton's ideal of a complete and generous education "which fits a man to perform justly, skilfully, and magnanimously all the offices both private and public of peace and war."

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[1] Livingstone, *op. cit.*, p. 211.

Other stimuli to development. Besides the definitely practical motive there was another stimulus to individual development. Under a system in which the welfare of society and the State depended wholly on the intellectual participation of the individual, the opportunities afforded by the sophists for intellectual training were eagerly seized upon. One of the elements that constituted a happy life was the enjoyment of esteem or honor among one's fellow citizens, and in the Periclean era success or distinction was open to the man who showed ability as an orator in public life or as a conversationalist in private life. The absence of magazines and newspapers afforded the able speaker exceptional chances for securing distinction. The word *agora* represents not merely the market-place for the transaction of business, but the general meeting place for the dissemination and discussion of the latest news, for the exchange of ideas, and for debate; and it has been pointed out that the word *agorazein* "means 'to frequent the market-place,' 'to lounge,' 'to buy,' and, above all, in an almost untranslatable phrase, 'to disport one's self' or 'be in good agora form.'"[2]

Similar demands were placed on the individual to shine conversationally in private life, for the Greek banquet depended for its success as much on the ability of those present to discuss literary and philosophical questions, as on their nimble wit and musical talent. Above all the door to political success and the way to public office lay open to him who had a persuasive tongue, and combined oratorical ability with a command of the intellectual achievements of the day. The art of speaking was combined with the art of knowing what to say, and for training in both the Athenians flocked to the sophists. Thus Socrates in explaining the eagerness of Hippocrates to meet Protagoras says, "I think he desires to become distinguished in the State." Knowledge of every subject of human interest, and ability to give expression to it in speech, came to be regarded as the marks of a liberal education. This ideal was, of course, open to abuse, and many of the sophists, yielding to the public demand, gave a training that resulted merely in quibbling and casuistry and superficiality, but it was this ideal that was the foundation of the system of secondary and university education at the close of the fifth and the beginning of the fourth centuries. It was under this ideal that the Athenians enjoyed that training which enabled them to discuss the meaning of religion and irreligion, the nature of beauty and ugliness, justice and courage, the qualities that make men good rulers, the definition of city or government, and many other topics of more immediate and utilitarian interest. As the ideal began to decline, partly because of the influence of sophists who were themselves imperfectly educated, partly because political life began to assume less importance with the decline of Athens's glory, oratorical ability, at first only a means, came to be regarded as an end in itself.

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[1] Xenophon. *Mem.*, I, 2, xlviii, quoted in Livingstone, *op. cit.*, p. 119.

[2] Zimmern, A. E. *The Greek Commonwealth*, p. 61. (Oxford, Clarendon Press, 1911.)

> We see an excited populace [in public assembly], forgetting the common sense which was the bedrock of its constitution, allowing its subtle and inquisitive intellect full play, and turning an assembly intended to transact serious business into a dazzling display of argument and casuistry. Such occasions brought to the fore a new type of public man, who had served no apprenticeship of responsibility in the business offices of the state, at best the thinker and the moralist, but too often only the accomplished Parliamentarian whom we know so well from our own newspapers.[1]

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[1] Zimmern, *op. cit.*, p. 166.

By such conditions, then, was the development of higher education fostered. As informal in its origin as modern university extension courses, a well-recognized system with definite preliminary requirements was developed by the beginning of the fourth century. To call this a system of secondary and university education would be driving the analogy too far; the system did, however, provide an organized education for students between the ages of about fourteen and twenty-five. The sophists covered a wide range of subjects which included natural science and mathematics, music, rhetoric, literature, poetry and meter, ethics, political science, and philosophy in general. Preliminary preparation was not required, nor were any age restrictions imposed upon the audience, although the education of the primary stage must have served as a general background for all. The wandering sophist, who depended for his success upon his plausibility or brilliance, was replaced at the beginning of the fourth century by formal schools that had definite and purposive curricula to offer.

Two types of schools. Two school types were differentiated, one emphasizing philosophy, the other rhetoric. The best representative of the first type is the school of Plato; of the second, the school of Isocrates. Both received students between the ages of fifteen and twenty-one; both were inspired by the same practical aim — the training of the good citizen — although each strove to attain the goal by different routes. Their problem was, of course, not complicated by the demands of alien tongues or literature, nor by the difficulties of vocational preparation, but even by this time the question of educational values had arisen. The selection of subjects for an organized course out of the diversified field created by the sophists was determined, in each school, not with reference to the demands of culture but by the ultimate needs of the individual as a member of society. While with Plato the ultimate goal of life should be the contemplation of the good, it is too often forgotten that this was a goal attainable only by the few; for the majority the purpose of education was to give a practical training for life — the desire to love the good and the beautiful and to hate the bad and the ugly. Even the final aim of life, the contemplation of the good, could only be reached after a life of practical experience; it is part of the training of the philosophers to turn the eyes of the cavemen toward the light. Isocrates also claimed that philosophy was the aim of education, but his view was limited to what was more immediately practicable. "That which is of no immediate use," he maintains, "either for speech or for action, does not deserve the name of philosophy," and again, "Philosophers are those who occupy themselves with those studies and pursuits from which they will most quickly obtain this practical wisdom or capacity for forming judgments."[1] The selection of subject-matter was accordingly determined for these two schools by the aim that they were meant to subserve. One element, however, both schools must have had in common — the distinction between liberal and illiberal subjects.

Meaning of liberal education. Plato had already distinguished in the *Republic* between the education of the ordinary individual, and the highest education of the philosophers who were to become kings.

> The natural tendency of the real lover of knowledge is to strain every nerve to reach real existence; and that far from resting at those multitudinous particular phenomena whose existence falls within the region of opinion, he presses on, undiscouraged, and desists not from his passion, till he has apprehended the nature of each thing as it really is, with that part of his soul whose property it is to lay hold of such objects, in virtue of its affinity to them; — and that having, by means of this, verily approached and held intercourse with that which verily exists, he begets wisdom and truth, so that then, and not till then, he knows, enjoys true life, and

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[1] Isocrates. *Antid.*, 118, 266, 268; quoted in Freeman, K. *Schools of Hellas* pp. 184 f. (London, Macmillan and Company, 1907.)

receives true nourishment, and is at length released from his travail pangs.[1]

The same idea is repeated in another passage, which offers a closer analogy to the later divorce of education from life:

> He who has his thoughts truly set on the things that really exist, cannot even spare time to look down upon the occupations of men, and, by disputing with them, catch the infection of malice and hostility. On the contrary, he devotes all his time to the contemplation of certain well-adjusted and changeless objects; and beholding how they neither wrong nor are wronged by each other, but are all obedient to order and harmony with reason, he studies to imitate and resemble them as closely as he can.[2]

Real love of wisdom devotes itself to pleasures "that are purely mental, abandoning those in which the body is instrumental." In the eighth book of the *Republic*, Plato discusses still further the differences between the highest type of education and other types that are diverted from this ideal through devotion to lower and more immediate ends, such as the pursuit of wealth.

The distinction between liberal and illiberal education was developed most clearly by Aristotle, although it was inherent in all Greek thinking on educational values. The passage in which the contrast between liberal and illiberal is made has exercised, whether consciously or unconsciously, such a profound influence on subsequent educational thought down to the present time that it deserves to be quoted in full.

> It is, of course, obvious that we shall have to teach our children such useful knowledge as is indispensable for them; but it is equally plain that all useful knowledge is not suitable for education. There is a distinction between liberal and illiberal subjects, and it is clear that only such knowledge as does not make the learner mechanical should enter into education. By mechanical subjects we must understand all art and studies that make the body, soul, or intellect

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[1] Plato. *Republic*, VI, 490. Translation of Davies, J. L., and Vaughan, D. J., pp. 203 f. (London, Macmillan and Company, 1901.)

[2] *Ibid.*, VI, 500; Davies and Vaughan, *op. cit.*, pp. 218 f.

> of freemen unserviceable for the use and exercise of goodness. That is why we call such pursuits as produce an inferior condition of body mechanical, and all wage-earning occupations. They allow the mind no leisure and they drag it down to a lower level. There are even some liberal arts, the acquisition of which up to a certain point is not unworthy of freemen, but which, if studied with excessive devotion or minuteness are open to the charge of being injurious in the manner described. The object with which we engage in or study them also makes a great difference; if it is for our own sakes or that of our friends, or to produce goodness they are not illiberal, while a man engaged in the very same pursuits to please strangers would in many cases be regarded as following the occupation of a slave or a serf.[1]

It is this point of view that is inherent in the modern connotation of culture, in which no account is taken of the fact that the Greek educators were writing for a different type of society, in which leisure implied not idleness or devotion to pursuits removed from the demands of a workaday world, but the possession of time and ability to give one's self wholeheartedly to the activities of public life. At its source a liberal education implied a training in those subjects that would furnish the individual with the equipment to participate to the best of his ability in the full life of society around him. With the exception of the brief period of the Renaissance it has been forgotten that Aristotle's definition was purely relative, and the attempt to adapt his definition to entirely different conditions, social, political, and economic, has led to a narrowness from which the educated world is only just beginning to emerge. Aristotle's emphasis, like that of Plato and Isocrates, is on the use of education for complete living; the narrowness of the modern conception has resulted in a partial education for only a small portion of a full life.

Differentiation of courses. The two types of schools represented by Plato and Isocrates developed two types of curricula to correspond to their respective aims. Both were based on the common foundation of literature, music, and gymnastics, to which Plato added a preliminary requirement of mathematics. The curriculum of the philosophical school consisted of the mathematical-scientific subjects, that of the rhetoric school emphasized the literary-historical branches. The future philosopher, who was to devote himself ultimately to a life of intellectual research, received a thorough grounding in the theory of number, geometry, astronomy, and the theory of music, the quadrivium of the medieval period, to which were added logic and dialectic. As is clear from the Platonic dialogues, however, the course must at some time have included a survey of all the known sciences of the time. That the aim of the course was not wholly a life of retirement and contemplation is indicated by the fact that several of Plato's students later became tyrants. It was only when the life of civic responsibility became impossible that the practical aim was lost sight of, and the contemplation of the good of Plato or the theoretic life of Aristotle became ends in themselves. When redefined in terms of Christianity these ideals became the rule of life of the Middle Ages, whether in the monastery or the university.

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[1] Burnet, John. *Aristotle on Education*, pp. 107 ff. (Cambridge University Press, 1903.)

The school of rhetoric, on the other hand, afforded a training for the man of the world, whether as an intellectual member of the community, as orator, as lawyer, or as leader in any other activity of life in which success depended on ability to influence others by speech. Thus Isocrates claims in a letter that he has had many pupils "some of whom have become great orators, some men of action, some great thinkers, some, with no particular talents, have at any rate become upright and cultured gentlemen."[1] While the function of the rhetoric school was to give a training in the practical technique of oratory, it is clear from the practice of Isocrates that he would have regarded an emphasis on style and form alone as a mere empty shell. The future orator must have a command not merely of the art of speaking, but of subject-matter as well. Hence his students were to be found studying literature and language, geography and history, law and political science, art and ethics, and, finally, logic — all of which were employed as the background for the training in rhetoric. Information and technical ability were insufficient, however, without a thorough moral training. The formation of character was accordingly regarded by Isocrates to be of as great importance as the teaching of rhetoric, and character was to be formed not through formal training, nor as a thing divorced from the studies of the classroom. The function of the teacher is to direct his pupils to noble thoughts and the example of noble lives as they occur in literature and history, that is, largely by selecting the reading and the themes for discussion. This purpose was fostered also by the practice of Isocrates of relying on the corporate activities of his pupils, so that his classroom resembled a debating society, in which the critical abilities were developed by the subjection of each pupil to the criticisms of his fellows, and of all to those of the teacher. Such a method was of course more possible where books were scarce, but Isocrates and other great teachers avowed a contempt for the written word, "For the written speech is deprived of the prestige of the author's presence and of his voice and of the proper rhetorical delivery: it is read when the occasion which called it forth is past, and the points which it discusses are consequently less interesting."[1] Plato adds to this the objection that knowledge can only be advanced by an interchange of thought *which is impossible* when one merely studies the pages of a book. Isocrates relied, therefore, on interchange of ideas between the pupils and between them and their teacher for the development of the critical sense, taste, and judgment, as well as character.

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[1] Quoted in Freeman, *op. cit.*, p. 192.

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[1] See further Freeman, *op. cit.*, pp. 204 ff., from which the statement of Isocrates is quoted.

The educated man. The educational ideals of this great teacher, which no doubt represent a summary of his educational practice, emphasize a note to which the modern exponent of liberal education has little to add. His statement of the meaning of culture presents a definition which, while it assigns due importance to knowledge, recognizes its chief value to lie in its influence on behavior.

> This [he states] is my definition of the educated man. First, he is capable of dealing with the ordinary events of life, by possessing a happy sense of fitness and a faculty of usually hitting upon the right course of action. Secondly, his behavior in any society is always correct and proper. If he is thrown with offensive or disagreeable company, he can meet it with easy good temper; and he treats everyone with the utmost fairness and gentleness. Thirdly, he always has the mastery over his pleasures, and does not give way unduly under misfortune and pain, but behaves in such cases with manliness and worthily of the nature which has been given to us. Fourthly (the most important point), he is not spoilt nor puffed up nor is his head turned by success, but he continues throughout to behave like a wise man, taking less pleasure in the good things which chance has given him at birth than in the products of his own talents and intelligence. Those whose soul is well tuned to play its part in all these ways, those I call wise and perfect men, and declare to possess all the virtues; those I regard as truly educated.[1]

The fruits of a liberal education should be judgment and good taste, self-control and modesty, ability to meet one's fellowmen, and intellectual interests. After two thousand years the educational world is again seeking to make this ideal a living reality in the modern secondary school.

Decline of Greek education. The vitality of both the philosophical and rhetoric schools was intimately bound up with the active life of the individual as a member of society. The formulation of the ideals which these schools represented coincided with the beginning of the decline of the City-State, in whose service the individual found his highest development. Nationalism was replaced by cosmopolitanism, and citizenship by a narrow individualism in which man became the measure of all things. The decay of the City-State robbed life of its greatest interest, and in ceasing to be the free and active citizen of an independent state the individual accepted more and more the definition of happiness as a condition of the soul, and forgot that the philosophers from whom he borrowed this ideal had postulated a life of rich experience as its foundation. For the first time the profession of the scholar as an end in itself began to be distinguished from other occupations. Divorced from life the schools rapidly declined into formalism and bookishness.

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[1] Quoted in Freeman, *op. cit.*, pp. 192 f.

> The higher literature takes to studying character instead of portraying action or pursues artistic effects with much talk of Art for Art's sake; and a corresponding change comes over the attitude of educated men to life. A generation grows up which takes few risks and makes little progress, which is content with a "modest competence" in matters of intellect more than in income. Vigor is replaced by virtuosity, and life by refined criticism of it.[1]

Except in fields of science and mathematics and in the development of some new literary forms the Greek world had no contribution to make after the fourth century. Her students and scholars were content from now on, in the seclusion of schools and libraries, to study the works of the great masters and to expound and comment on these. Creativeness and originality had died with the public activities that had stimulated them. In the schools liberal education in its turn was defined in terms of knowledge of the best that had been thought and done in the past, and gradually narrowed into a study of form rather than content. The educational ideal of Greece at her best was forgotten, that ideal which demanded so harmonious a development of the individual that his physical, intellectual, æsthetic, and moral qualities found their best expression in a life of social activity. The form of the later Greek schools has frequently been reproduced, but the permanent contribution of the Greeks, the spirit underlying their life and culture, has never been recaptured by the world completely and in all its richness.

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[1] Livingstone, *op. cit.*, p. 241.

CHAPTER II

ROMAN EDUCATION

Early education. When the Romans were ready to advance their educational system beyond the mere rudiments of an elementary education, they turned eagerly to the Greek models. It was not, however, until after five centuries of conquest and expansion that they began to feel the need of new ideas of culture and liberal education. During the early period the practical matter-of-fact Roman was content with training that insured ability to read, write, and cipher, produced physical fitness, imparted a knowledge of the laws, and inculcated the virtues of obedience, reverence, and service to the home and the State. A system of education was not yet thought of, much less a state organization; reverence for ancestral custom was sufficiently powerful to secure uniformity of practice. In general boys were educated through a system of apprenticeship to their fathers; from them they received their rudiments, and by their side they acquired a knowledge of those duties and practices that were expected from the citizen in public and private life.

The absence of a native literature rendered formal education unnecessary beyond the elementary stage. Cato represents at once the latest survival of the ancient practice and the beginnings of those intellectual interests that were to find their satisfaction through Greek influences. By way of contrast with the conception that was soon to develop, it is interesting to note the emphasis placed by Cato on the practical arts of oratory, agriculture, law, war, and medicine, as the proper equipment of the cultured citizen. His own history of Rome and Italy (*Origines*), the Maxims (*Praecepta ad Filium*), his versified moral textbook (*Carmen de Moribus*), and his treatise on Agriculture (*De Re Rustica*) were intended mainly for the guidance of his son. It is significant, however, as showing his inability to stem the tide of Greek learning that in later years he studied Thucydides and Demosthenes to improve his style.

Greek influence. It is impossible to define with any degree of accuracy the date when the Romans came into contact with the Greeks. Their expansion in Italy must have brought them into touch with the Greek colonies early in the third century B.C., from which time at least the need of a practical knowledge of the Greek language must have made itself felt. The development of the cultural influences must have been gradual from the middle of the second century B.C., when the works of Livius Andronicus and Ennius, both Greek slaves who had been freed, laid the foundation for the Hellenization of Latin literature. The translation of Homer's *Odyssey* by the former, and the poetical history of Rome and the dramatic works of the latter, based on Greek models, at once bridged the gap between Greek and Latin literature and afforded a subject for study in the schools. The references to Greek drama in Plautus and Terence would indicate a wider popular acquaintance with Greek literature than is generally imagined. By 170 B.C. the interest in Greek had so far advanced that the lectures of Crates of Mallos on philology and literature could command wider attention.

That the influx of foreign influence was not regarded without suspicion by the guardians of ancestral traditions is indicated by the expulsion of philosophers and rhetoricians in 161 B.C. It may have been no mere accident that the beginnings of that individualism and social unrest, which were to lead to the overthrow of the Republic, coincided with the firm establishment of Greek influences. The employment of Greek tutors became common after the conquest of Greece in 146 B.C. The younger Scipio, his friend Lælius, and the two Gracchi are the most brilliant examples of this practice. The study of grammar, literature, and rhetoric became a part of higher education, and, while philosophy made no great appeal to the more practical-minded Roman, "it was no unusual thing for a Roman noble to have in his house a Greek philosopher as a kind of domestic chaplain."[1] The success of the Greek rhetoricians led to the rise of Latin imitators who were regarded with so much disfavor that, in 92 B.C., they were forbidden to teach because they "were mere ignorant pretenders, inefficient imitators of their Greek rivals from whom the Roman youth were not likely to learn anything but impudence."[2] Cicero himself had some intention of studying under a prominent Latin rhetorician, Plotius, but, as he declares, he was checked "by the opinions of learned men who held that in this matter the abilities of young men are more profitably nourished by exercises in Greek."

By the beginning of the last century B.C. a system of secondary education was established, and followed in the main the Greek practice that prevailed at the time of Isocrates. While the schools and the content of instruction owed much to the Greeks, the educational ideal that was formulated was essentially native in character. Practical and realistic as they were, and lacking the imaginative qualities of the Greeks, the Romans never appreciated the meaning of the Greek educational ideal at its best. Higher education was always considered from the point of view of preparation for a practical career; culture for its own sake found no place in their educational philosophy until late in the imperial period. Liberal education was defined in terms of the practical needs of the time, and placed the chief emphasis on a narrow intellectual and moral training. Music and dancing played no part in Roman life except for ceremonial purposes, while physical

[1] Wilkins, A. *Roman Education*, p. 31 (Cambridge University Press, 1914); Gwynn, A. *Roman Education* (Oxford, 1926).

[2] Cicero. *De Or.*, 24.

training had for its aim not bodily grace and beauty, but the fitness necessary for military service. Education on the æsthetic side was wholly neglected.

Education of the orator. It is not without significance, therefore, that there is not to be found in classical Latin literature a comprehensive treatise on education comparable, for example, with those of Plato and Aristotle, and that our knowledge of the aims and purposes of higher education at Rome is obtained from the discussions on the practical training for successful careers in the State. The avenue to distinction lay for the ambitious Roman in the careers of the soldier, the lawyer, or the statesman, and in the City-State public approval was most easily won by a command of the arts of speech in any of these three professions. The importance of oratorical ability at all times in Rome is attested by Cicero's declaration that "there were then as there are now the highest inducements offered for the cultivation of this study in regard to public favor, wealth and dignity."[1] "The greater the oratorical ability one possesses, the more readily he attains positions of distinction"[2] says Tacitus, a fact corroborated by Cicero's statement, "There are two arts that can place men in the highest and most distinguished rank, that of the general and that of the orator; by the one the adornments of peace are preserved, by the other the dangers of war are repulsed."[3] He might have added that the successful general was also expected to be a commendable orator. Referring to the popularity of rhetoric in the last century of the Republic, Suetonius says:

> Many cultivated it as an equipment for the attainment of distinction... Accordingly as soon as the great enthusiasm was once established, a large number of professors and teachers sprang up and met with such success that some advanced from the lowest position to the senatorial rank and to the highest offices.[4]

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[1] Cicero. *De Or.*, I, 4.

[2] Tacitus. *Dial.*, 36.

[3] Cicero. *Pro Mur.*, 14.

[4] Suetonius. *De Grammaticis*, 25.

The most important educational literature is devoted, therefore, to the consideration of the most appropriate training for the orator — the ideal leader in public life — and deals not merely with the technical training in rhetoric and oratory but also with the preparation that must precede this specialization. It would be a mistake, however, to infer that the recognition that was given to the practical purpose of education led to narrowness of conception. The clear definition of the goal only served to make the training that was to lead up to it more living and more real.

The ideal of the orator was as broad as the conception of public life and service. Indeed, the purely professional aspect of the training would have had in it little to commend it to any of our authorities — Cicero, Quintilian, or Tacitus. The ideal implies the moral and intellectual training which finds its practical expression in the employment of technical rhetorical ability in public service. Cato's definition of the orator as the good man skilled in speaking is further emphasized in Quintilian's statement that no man, unless he be good, can ever be an orator.

> It is not a plodder in the forum or a mercenary pleader... that I desire to form but a man who being possessed of the highest natural genius stores his mind thoroughly with the most valuable kind of knowledge; a man sent by the gods to do honor to the world and such as no preceding age has known, a man in every way eminent and excellent, a thinker of the best thoughts and a speaker of the best language.[1]

While neither Cicero nor Tacitus refers expressly to the importance of the moral aspect, its recognition is implicit throughout their writings on the training of the orator.

Liberal preparation. The importance of complete and liberal intellectual preparation is, however, emphasized by all the writers. Cicero, for example, insists that:

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[1] Quintilian. *Inst.*, II, 25.

> No man can be an orator possessed of every praiseworthy accomplishment, unless he has attained the knowledge of everything important and of all liberal arts, for his language must be ornate and copious from knowledge, since, unless there be beneath the surface matter understood and felt by the speaker, oratory becomes an empty and almost puerile flow of words.[1]

This statement was later quoted with approval by Quintilian.[2] Tacitus also requires the orator "to be armed at all points with the whole panoply of knowledge." [3] The underlying purpose in these recommendations is that "whatever occurs in human life... ought to have been examined, heard of, read, discussed, handled and managed by the orator." [4] The cultured Roman, however, was not the man whose education led him to the study of more books, or to look upon life through the medium of books, but the man whose experience was expanded by a liberal education looking to public activity as the goal. In Cicero's day study under a teacher was supplemented by an apprenticeship to a lawyer, statesman, or general, and for Quintilian the cultured Roman is he who proves himself a true statesman not by discussions in retirement, like the philosopher, but by personal experience and exertions in public life.[5] The further implication of the pragmatic ideal, that education should not be divorced from life, is indicated in Cicero's view that successful oratory must appeal to the many as well as to the few, and that popular esteem is itself a mark of the great orator.[6]

Since the orator must have command of all the branches of knowledge requisite for a man of good breeding,[7] his education necessarily embraces all those subjects that were deemed essential for the cultivated man. Tacitus cites with approval the education of Cicero as the appropriate training for the orator. It included geometry, music, grammar and every liberal art, ethics and moral philosophy, the operations of nature and the causes of her phenomena, beside special study in Greece and Asia and an apprenticeship to a famous jurist of the day. It is significant as indicating the distance traveled in less than the century that elapsed between the two men that Cato's formulation of the subjects of study — oratory, agriculture, law, war, and medicine — had been expanded by Varro into grammar, dialectic, rhetoric, geometry, arithmetic, astronomy, music, medicine, and architecture, an encylopedic curriculum that was no doubt regarded as the foundation for specialized preparation for the legal, political, and military careers. These subjects, with the addition of literature and science, constituted the whole round of a liberal education.

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[1] Cicero. *De Or.*, I, 6; compare also I, 15.

[2] Quintilian. *Inst.*, II, 21, 12.

[3] Tacitus. *Dial.*, 32.

[4] Quintilian. *Inst.*, II, 21, 11.

[5] *Ibid.*, XII, 2, 7.

[6] Cicero. *De Or.*, I, 3; *Brutus*, 183. See also Nettleship, H. *Lectures and Essays*, Second Series, pp. 58 ff. (Oxford, Clarendon Press, 1895.)

[7] Cicero. *De Or.*, I, 16.

Already the influence of the Greek tradition was crystallized. So far as the training of the orator was concerned, the choice of subjects appears to have been determined by two aims. On the one hand, the orator was expected to have a command of the contemporary encyclopedic course as formulated by Varro; on the other, certain subjects received special attention as the essential foundation for technical ability. "The poets must also be studied" in addition to the orators, says Cicero; "an acquaintance must be formed with history: the writers and teachers in all the liberal arts and sciences must be read, and turned over, and must, for the sake of exercise be praised, interpreted, corrected, censured, refuted."[1] This broad conception must have begun to be narrowed down even in Cicero's day, and the chief emphasis was placed on the literary-linguistic branches. Quintilian, it is true, includes in the preparatory training of the orator, besides grammar (the art of writing and speaking correctly on the basis of wide reading of

[1] Cicero. *De Or.*, I, 34.

literature), astronomy, physics, music, geometry, and philosophy, but all these subjects were subsidiary to the main purpose. In his own day Quintilian felt called upon to answer the Philistines, who objected to the inclusion of subjects whose immediate utility was not obvious. "Of what use is it, say some people," he writes, "for pleading a cause, or pronouncing a legal opinion, to know how equilateral triangles may be erected upon a given line? Or how will he who has marked the sounds of the lyre by their names and intervals, defend an accused person, or direct consultations, the better on that account?" His answer is that these accomplishments will contribute to the perfection of the orator, or the educated man. Thus, at this early stage of the development of a theory of secondary education, the question of utility was raised, and according to Quintilian there were some who admitted some subjects for their disciplinary value, while being studied, although not profitable after they have been acquired.[1] Quintilian seeks to combat these points of view, and would have defined education not merely in terms of the knowledge and the skill that were expected in the chief profession of the day, that of the orator, but in terms of those attitudes that can come only from an acquaintance with all the important contributions of human endeavor.

Organization of secondary education. When the Republic came to an end, secondary education was definitely organized. The State gave no recognition to this, or to any other branch of education. It cannot be stated with any degree of accuracy what proportion or what class of the population enjoyed the advantages of higher education. For the majority probably the elementary schools necessarily sufficed, to be followed by a period of apprenticeship. That secondary education was more widely diffused among the upper and middle classes, that is those of the senatorial and equestrian ranks, than is generally supposed, may be conjectured from the fact that Cicero was the son of a knight who had held no office in such a small town as Arpinum, while Horace was the son of an ambitious freedman who was a tax-collector, and Palæmon, a famous grammarian, who became one of the wealthiest teachers in the first century A.D., was the son of a slave, and owed his rise to his distinction as a scholar. Although it would not generally hold of the Republican period, it was the fact that under the Empire, as in the Middle Ages, the road to preferment lay through the schools.

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[1] Quintilian. *Inst.*, I, 10, 34.

Secondary education began between the ages of twelve and fourteen, usually after an elementary education of five years in the school of the *literator* or *ludimagister*, who taught reading, writing, and arithmetic. From the elementary school the pupil passed to the grammar school or school of the *grammaticus*, where he remained until he assumed the *toga virilis*, and thence proceeded to the school of oratory or of the *rhetor*. At the beginning of the Imperial period, however, there was considerable overlapping in the work of the two schools, and, since they both covered the period of adolescence, they may be considered in combination as affording the typical secondary education of the time. At one period the pupil who wished to study Greek resorted to a special teacher for the subject, but here too the later grammarians probably taught both Latin and Greek.

Subject-matter of the secondary school. The chief function of the grammar school was to furnish a thorough training in language and literature. Other subjects were added in the necessary expansion of these main branches, and were probably taught incidentally by way of interpreting and elucidating the texts studied. In this way room was found for mythology, history, geography, religion, and antiquities. The core of the school, however, was undoubtedly furnished by the thorough linguistic-literary training which was to serve as the basis of the subsequent technical training of the rhetoric school. It was the broad conception of the main subject of study that established the title of grammar school as synonymous with the school for liberal education. Grammar textbooks were not wanting, although in the absence of these, or, because of their cost, the teachers made their own. Varro, who already had a number of predecessors and was the best-known Roman to compose a comprehensive work on the subject, declares that grammar consists of four parts — reading, interpretation, correction, and criticism. Cæsar is credited with a contribution to this field in the *De Analogia* in two books, dealing with the alphabet and words in one and irregular inflections and verbs in the other. The subject was particularly cultivated in the Imperial period. The *Ars Grammatica* of Remmius Palæmon, already referred to, was perhaps the best known schoolbook of the first century, and included hints on correct style, chapters on barbarisms, solecisms, and examples from the poets. To Palæmon is generally attributed the vogue of Vergil, whose works began to displace those of Homer at the close of the first century.[1] Grammar accordingly covered much besides accidence and syntax, philology and etymology. As a generic term it included the study of literature and style.

Reading. Since the main body of reading was confined to the poets, due perhaps to the poverty of Latin prose, meter and prosody received attention, and in this connection Quintilian advocated the study of the theory of music. The study of an author involved not merely understanding of the meaning but the allusions in the various fields mentioned above, comparison with similar passages elsewhere, and textual and literary criticism. The reading, at any rate in the early Imperial period, was already extensive and included not only the Greek poets and tragedians, but the Latin poets of the golden and silver age. Whether Quintilian reflects the current practice when he recommends that Greek be studied before Latin is not clear, nor is much attention given to the question of translation, which must have assumed some importance. Cicero refers to his own continuance of the practice of translating the best Greek orators "by fixing upon which I gained," he writes, "this advantage, that while I rendered into Latin what I had read in Greek, I not only used the best words and yet such as were of common occurrence but also formed some words by imitation."[1] Pliny recommends the practice of translation and, since the practice advocated by him was to be revived some fifteen hundred years later, his advice may be reproduced here:

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[1] See in general Nettleship, *op. cit.*

> The most useful method and, as many think, the most preferable is translation either from Greek into Latin or from Latin into Greek. By this kind of exercise are to be acquired the propriety and beauty of expression, the extent of figures, the power of explanation, besides a facility of imitating the best authors so as to fall into the same turn of thought. Those circumstances which may not strike a reader cannot possibly escape a translator. Knowledge and judgment are both acquired by translation. As soon as you have read a book, by way of emulation, you may undertake the same argument and subject-matter, comparing and carefully weighing your own performance with the book that you have read.[2]

The range of reading in Greek included Homer, Hesiod, the tragedians, and the comedians and lyric poets, if selected with care; and in Latin Livius Andronicus, Ennius, Plautus, Terence, Vergil, Horace, Lucan, and Statius. The selection of authors and passages to be read was determined by Quintilian's advice that "care is to be taken above all things that tender minds which would imbibe deeply whatever has entered them while rude and ignorant, may learn not only what is eloquent but still more what is morally good."[3]

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[1] Cicero. *De Or*, I, 34.

[2] Pliny. *Epistolæ*, VII, 9.

[3] Quintilian, *Inst.*, I, 8, 4.

Composition. The reading and study of authors was accompanied by exercises in composition, in which a simple routine was developed early. The pupil began with the reproduction of stories and narratives, and then passed on to paraphrases of the material read, a practice subject in Cicero's day to the same objections that are brought against it in modern times. After attaining some facility in writing on the basis of the reading the pupil was then introduced to the writing of compositions on set themes, and the elaboration of commonplaces or general topics that were sure to come up in the pupil's professional career. There is no direct evidence that verse-writing formed part of the grammar-school curriculum. The probability that it did is indicated by the early age at which some of the better known writers began their work. The value of this practice for securing a command of language and rhythm cannot have escaped the attention of teachers who placed so much emphasis on the study of the poets in the training of the orator.[1]

The rhetoric school. At this point, probably at about the time when a boy assumed the *toga virilis*, the study of rhetoric proper was taken up, being sometimes continued in the school of the *grammaticus*, but more generally pursued in the special school. As compared with the grammar school whose chief function was to develop literary taste and a command of style, as well as to impart general knowledge, the peculiar task of the rhetoric school was to give the technical training of the orator in the theory and practice of speaking. In general this training consisted merely of an expansion of the method employed in teaching composition. The preliminary exercises or *progymnasmata* that served as an introduction to declamation constituted in fact only a repetition of this method — the writing of narratives, arguments for and against a story, panegyrics and invectives, the discussion of a sentiment, which might be a general reflection on an abstract question, and the criticism of histories and orations. This practice, which demanded a broad range of knowledge and afforded the pupil an exercise in originality, was followed by a study of the different types of oratory suited to various occasions and needs, and of the organization of a speech — the choice of matter, its arrangement, the appropriate diction, memorization, and propriety of tone and gesture. The chief emphasis naturally was placed on declamation, which in Quintilian's day, when the practice was already standardized, was divided into two types — *suasoriæ* or speeches that urged a course of action, and *controversiæ* or speeches that affirmed or denied a point.

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[1] See Wilkins, A. S. *Roman Education*, p. 74 (Cambridge, 1905); Friedländer. *Roman Life and Manners Under the Early Empire*, III (London, 1908–1913).

The subjects that formed the basis of these practical exercises in the best days of the rhetoric school, when the orator and the power of speech were still influential forces in public life and when a career was open to commanding ability, were generally derived from real and actual problems of life. Liberal education, in other words, was vitalized and quickened by its association with the practical needs of the time, and in Cicero's day at any rate the purely technical training was developed not so much by the school as by a system of apprenticeship to the great lawyers, politicians, and orators of the day.

Decline of secondary education. With the development of the Empire, however, and the establishment of an administrative system in which advancement depended on the favorable notice of the Imperial Ruler, all incentive to personal ambition, which sought a career by virtue of oratorical ability, was removed. Liberal education became an end in itself — sterile, unprogressive, living in the past, and out of touch and sympathy with reality. This appears not merely from the complaints of those who were biassed in favor of the ancient régime, but is borne out by the types of topics that were now offered as exercises in the schools. Quintilian[1] says that "those who seek a reputation are satisfied with superficial subjects," while Tacitus laments the decline in education and the emphasis on the mechanics alone:

> Thus, eloquence, like a dethroned potentate, is banished her rightful dominions and confined to barren points and low conceits; and she who was once mistress of the whole circle of sciences and charmed every beholder with the goodly appearance of her glorious train, is now shorn and curtailed, stripped of all her honors, all her attendants (I had almost said of all her genius), and is taken up as one of the meanest of the mechanic arts.[2]

The same conditions at the same period gave point to Seneca's famous dictum, *Non vitae sed scholae discimus* — a striking summary of scholasticism in education at any period. Tacitus ably summarizes the character of the schools when he speaks of "the parcel of boys and raw youths of unripe judgments who harangue each other, without the least fear of danger of criticism"; they are taught, he says, "to harangue in a most pompous diction on the rewards due to tyrannicides, on the election to be made by deflowered virgins, on the licentiousness of married women, on the ceremonies to be observed in times of pestilence, with other topics that are daily debated in the schools and scarce ever in the forum."[3] Petronius believes "that college makes complete fools of our young men, because they see and hear nothing of ordinary life there," and "teachers more than any one else have been the ruin of eloquence," because "their tripping, empty tones stimulate certain absurd effects into being, with the result that the substance of the speech languishes and dies."[4]

From subject to form. Artificiality and affectation were the necessary consequences of an outworn educational ideal. The cult of oratory in the schools at a time when there was no scope for its use and no audience to persuade or guide necessarily shifted the attention from subject to form; dazzling and glittering style, the obscure and unusual phrase were now cultivated to win the applause of the dilettanti who gathered to hear each other recite poems or deliver orations.

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[1] *Inst.*, VII, I, 4.

[2] Tacitus. *Dial.*, 32.

[3] *Ibid.*, 35. Juvenal adds a number of other examples of the same type (*Sat.*, VII). See also Friedländer, *op. cit.*, III, pp. 14 ff.

[4] Petronius. *Satyricon*, I, 2. Translated by M. Heseltine in the Loeb Classical Library. (London, 1916.)

> Becoming an end in itself rhetoric ceased to be the natural instrument for expression of thought and feeling. The reign of the artist is over and that of the virtuoso has begun, who writes not to move the heart but to display the capacity of his instrument. Men were now called upon to admire, not the adaptation of language to thought, but the language itself.[1]

As soon as its ideal and routine became crystallized, education ceased to be either an expression of contemporary thought or an instrument of progress.

> The rhetorical training of free Rome had been a necessity of public life, when the power of speech in law courts or popular assemblies was a great political engine. And in the work of Martianus Capella, which was to be the textbook of the Middle Ages, rhetoric is still treated as if the student were a contemporary of Cicero. All through the five centuries of the Empire, during which oratory had almost ceased to have any practical power, the Roman schools maintained the tradition which had been founded by Corax and Tisias, and which had produced such triumphs of practical oratory at Rome in Cicero and Hortensius.[2]

The worst consequence of this subservience to the ideals of a bygone age, and of the devotion to the best that had been said and done in the past, was not so much that it emphasized and excused a divorce between the school and life but that it led to intellectual stagnation.

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[1] Nettleship, H. *Op. cit.*, p. 115. (Oxford, Clarendon Press, 1895.)

[2] Dill, S. *Roman Society in the Last Century of the Western Empire*, p. 426. (London, Macmillan and Company, 1906.)

Under such a system of education, any true conception of science as a domain at once limited and capable of indefinite expansion was lost. The pupil's gaze was fixed on a few models of unsurpassable excellence. The memory was exercised from the earliest youth on mythical fancies which had long ceased to be believed, and brilliancies of figure and phrase which were the particular expression of individual genius or of the mental attitude of a long past age. The secrets of nature moved no curiosity, the great events of the most momentous period in history created only a languid interest. The true son of Rome was the man who believed in her past, who was an adept in the mysteries of her discipline, which bound together cultivated men of all races under her sway, who had a tranquil faith that to-morrow would be as yesterday and that the human spirit could subsist forever on the stores of ancient wisdom and industry. Such an atmosphere untroubled or unrefreshed by any current blowing from the future is indeed the congenial air of despotism and caste; it is fatal to any germs of the love of truth or freedom. If a man wished to characterize in a single word the bad side of education in the fifth century, "servility" would probably be the most apt and truthful.[1]

Public grammar schools. A different situation, however, could hardly have been expected. While education was no longer essential to preferment, it did furnish an outlet for the talents of the upper classes, however narrow that may have been. Every circumstance contributed to its perpetuation. The natural inertia of the teaching profession, which in itself must have played an important part in continuing a routine once established because of its practical success, was encouraged and stimulated by the recognition offered to it by the Emperors. Little was to be feared from the cultivation of letters which at once afforded a sphere for the activities and yielded sufficient distinction to please the vanity of those who under a free régime would have devoted themselves to public life. Cæsar had already recognized the services of the teaching profession by conferring the franchise on teachers of the liberal arts, as well as on physicians of the capital. It remained, however, for the Emperors to offer more material recognition to the teachers of grammar and rhetoric. Vespasian established the precedent by the institution of salaries from the public treasury for Latin and Greek rhetoricians. This practice was continued by Hadrian, who also founded at Rome the Athenæum, the germ of an academy or university, where the people flocked to listen to the recitation of poems and speeches. His successors, Antoninus Pius and Marcus Aurelius, carried on the tradition. Diocletian somewhat later introduced a scale of salaries for all branches of the profession, the teachers of grammar and geometry receiving four times, and the teachers of rhetoric five times, as much as the teachers of reading, $1.20 a month.[1] Constantine confirmed the privileges of teachers, and granted them in addition exemption from military service. From an edict of Julian it is definitely established that municipalities appointed teachers, subject to confirmation by the Emperor, while an edict of Gratian required municipalities to pay the salaries of teachers of Latin and Greek grammar and rhetoric out of the rates. Imperial interest in education was not confined merely to honoring the teacher. Under Trajan, Nerva, and Alexander Severus, educational exhibitions were granted to poor free-born children.

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[1] Dill, S. *Op. cit.*, pp. 427 f. (London, Macmillan and Company, 1906.)

The endowment of education was not restricted to the Emperors; it was often the result of private philanthropy. The practice was merely the extension of the custom of celebrating the election to office and other honors by the gratuitous distribution of money or food, at first to adults and later to children. Such endowments were found at Beleia in Upper Italy, near Beneventum in Southern Italy, at Cirta Sicca in Africa, and also in Spain.[2] The classical example of such an endowment is that of

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[1] Grasberger, L. *Erziehung und Unterricht im klassischen Altertum*, II, 585. (Würzburg, 1864–1881.)

[2] Davis, W. S. *The Influence of Wealth in Imperial Rome*, p. 255. (New York, 1910.)

Pliny, who undertook to furnish one third of the cost of a school at Comum, provided the parents supplied the remainder,

> for those who perhaps would be negligent with other people's money would certainly be careful with their own, and will exert their efforts to the utmost that the person who is to receive his salary from me shall be worthy of it because their own share is also to be paid.[1]

In general, however, schools were established and maintained by municipal authorities, the teachers' salaries being supplemented by fees, for each provincial municipality strove to emulate Rome. Strabo refers to the public employment of teachers and physicians in Marseilles and other towns in Gaul.[2] The wide diffusion of higher education is attested by the important part played in the literary and intellectual history of Imperial Rome by the provinces of Africa, Spain, and Gaul, no less than the provinces of the Eastern Mediterranean. The establishment of schools was not only a matter of municipal ambition, but it was no doubt a part of the Imperial policy, for Agricola in his plan for Romanizing Britain is known to have established schools that were well attended.

[1] Pliny. *Ep.*, IV, 13.

[2] Strabo, IV, 1, 5 (181); see also Haarhoff, T. *Schools of Gaul.* (Oxford, 1920.)

CHAPTER III

THE MIDDLE AGES

Christianity and the grammar schools. Decadent as the grammar and rhetoric schools of the Roman Empire were, and although divorced by their formalism and artificiality as they became from the everyday affairs and demands of life, they were destined nevertheless to furnish the form for the organization and technique of education during the Middle Ages. Not only did the early leaders in the Church, like Gregory of Nazianzus, Basil of Cæsarea, Chrysostom and Jerome and many others, receive their early education in pagan schools, but when the Church as an organization began to recognize the need of educating its ministers it found in the traditional practices of the grammar schools a foundation on which to build schools to meet its own needs. While the grammar school survived as a basic type of educational institution, the new objects and aims of education — preparation of Christian leaders in Church and State — early led to a controversy on the compatibility between pagan learning and Christian life and faith. The Church Fathers were confronted with a real difficulty in an attempt to retain the literature taught in the grammar schools, so intimately bound up with the myths and gods of the Greeks and Romans, and at the same time to train in the doctrines of the new creed.

This difficulty was early stated by Tertullian:

> We know it may be said, "If teaching literature is not lawful to God's servants, neither will learning be likewise," and "How would one be trained unto ordinary human intelligence, or unto any sense or action whatever, since literature is the means of training for all life? How do we repudiate secular studies without which divine studies cannot be pursued?"

Recognizing that secular and divine studies are interwoven, Tertullian resolves the difficulty, as others did before him, by claiming that much in Greek and Latin literature was borrowed from the sacred writings, a claim which appears in Clement's statement that "Plato was Moses Atticized."

Origen, who studied and himself taught secular literature and other subjects, attempts to reconcile the claims of secular and divine learning, as follows, in a letter to Gregory Thaumaturgus:

> But I am anxious that you should devote all the strength of your natural good parts to Christianity for your end; and in order to do this, I wish to ask you to extract from the philosophy of the Greeks what may serve as a course of study or preparation for Christianity, and from geometry and astronomy what will serve to explain the sacred Scriptures, in order that as all the sons of the philosophers are wont to say about geometry and music, grammar and rhetoric and astronomy, as fellow-helpers to philosophy, we may say about philosophy itself in relation to Christianity.

Elsewhere, he says: "We are permitted when we go out of Egypt to carry with us the riches of the Egyptians wherewith to adorn the tabernacle," an analogy later used by Augustine.[1]

The Western rejection of pagan learning. The question was not to be settled so simply, especially in Western Europe, where the conversion of the barbarians rendered more dangerous any references to pagan learning. Chrysostom, though not concerned with this aspect of the problem, yet stated the general situation more succinctly than any of the other Fathers, Greek or Latin:

> In fact, the choice lies between two alternatives — a liberal education which you may get by sending your children to the public schools, or the salvation of their souls which you secure by sending them to the monks. Which is to gain the day, science or the soul? If you can unite both advantages, do so by all means; but if not, choose the most precious.

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[1] West, A. F. *Alcuin*, pp. 12 f. (New York, Charles Scribner's Sons, 1892.)

The conflict in the minds of Jerome and Augustine, both thoroughly imbued with classical learning, is well known; the former, although he abjured pagan literature, returned to his old love and late in life taught boys grammar, Plautus, Terence, and Vergil, while the latter recommends grammatical and rhetorical training for the Christian teacher.

The ultimate victory in the fourth century, and until the revival in the days of Charlemagne, lay with those who opposed the study of classical writings. The *Apostolic Constitution* summarized the attitude of the Church in the fourth century:

> Abstain from all heathen books. For what hast thou to do with such heathen discourses, or laws, or false prophets, which subvert the faith of the unstable? For what defects dost thou find in the law of God, that thou shouldst have recourse to those heathenish fables? For if thou hast a mind to read history, thou hast the books of the Kings; if books of wisdom or poetry, thou hast those of the prophets, of Job, the Proverbs, in which thou wilt find greater depth of sagacity than in all the heathen poets and sophisters, because these are the words of the Lord, the only wise God. If thou desirest something to sing, thou hast the Psalms; if the origin of things, thou hast Genesis; if laws and statutes, thou hast the glorious law of the Lord God. Do thou, therefore, abstain from all strange and diabolical books.

So Sulpicius Severus asks:

> What glory did the pagan writers themselves gain by a literary glory that was to perish with their generation? Of what profit was it to posterity to read of Hector's battles or Socrates' philosophy?

Isidore of Seville pursues the same idea:

> A monk should eschew reading gentile works or the writings of heretics; for it is better to remain in ignorance of their pernicious teachings than by trying thus to run the risk of flying into the snare of error.

Finally, Pope Gregory the Great considered that "it is utterly unworthy to keep the language of the Divine Oracles in subjection to the rules of Donatus," and in a letter called Desiderius, Bishop of Vienne, to account, because,

> as we cannot relate without shame, it has come to our knowledge that your brotherhood teaches grammar to certain persons; which we take all the worse as it converts what we formerly said to lamentation and mourning, since the praise of Christ cannot lie in one mouth with the praise of Jupiter. Consider yourself what a crime it is for bishops to recite what would be improper for a religiously minded layman.[1]

A new educational aim. The import of this conflict was that it was an attempt to discover a curriculum and content better adapted to the newly formulated purposes of education. The aim of education was no longer preparation for successful citizenship in the world of public affairs, nor could it under the conditions of the time be the cultivation of a sense of patriotism or nationalism, or of public duty and social welfare in the broadest sense. Educational objectives were dominated by two ends; one, general, was to prepare loyal followers of the faith, devoted not to the mundane interests of this world, but to the salvation of their souls in the next; and the other, special, to train intelligent leaders and ministers of the Church, and before very long of all public and private services that required literacy.

> The clerks supplied not only the chaplains, but the civil servants, secretaries, attornies and land-stewards of the age. Domesday Book and the vast number of accounts, title-deeds, charters and the like legal documents, which still survive, were their work. Some of the feudal establishments, therefore, included a number of learned per-

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[1] For further discussion of the attitude of the early Church to classical learning, see Monroe, P., *Cyclopedia of Education*, under "Christian Education in the Early Church, and Middle Ages, Education During the"; Monroe, P., *History of Education*, pp. 235 ff. (New York, The Macmillan Company, 1905); Hodgson, G., *Primitive Christian Education*, pp. 190 ff. (Edinburgh, T. & T. Clark, 1906); Leach, A. F., *The Schools of Medieval England*, pp. 21 ff. (London, Methuen & Co., 1915); Cubberley, E. P., *Readings in History of Education*, pp. 54 f. (Boston, Houghton Mifflin Company, 1920).

sons, or furnished the nucleus of an educated society, in the narrow sense of the phrase as used to-day.[1]

The movement was definitely an attempt at educational adjustment in response to the ideals and needs of contemporary life, and, since these ideals and purposes were dominated, and were destined to be dominated for another thousand years, by the Church, the provision of schools and teachers, and of curricula and textbooks, so far as secondary education was concerned, was carefully guarded in the hands and under the supervision of the Church and its officials. As Leach, speaking of England, points out:

> the law of education was a branch of the canon law. The church courts had exclusive jurisdiction over schools and universities and colleges, and until 1540 all schoolmasters and scholars were clerks, or clerics, or clergy, and in orders, though not necessarily holy orders.[2]

The religious and ecclesiastical purpose of education is well summarized in a canon, equally applicable to all early medieval education, of the Council of Clovesho, A.D. 747:

> Moreover let the boys at school be compelled and exercised in the love of sacred learning, that so they may be found well learned for all the needs of God's Church, and not become rectors so greedy for earthly business that the house of God is depraved for want of spiritual adornment.[3]

Up to the fifth century in Gaul, and perhaps for two centuries longer in Italy, the grammar and rhetoric schools continued to be the centers of secondary and higher education. Ausonius refers to the continuance of a large number of schools in Gaul in the fourth century, while Sidonius Apollinaris, himself a grammar schoolmaster, was in correspondence in the following century with the masters of grammar and rhetoric, and himself saw the destruction wrought by the barbarian invaders.

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[1] Adamson, J. W. *A Short History of Education*, p. 13. (Cambridge University Press, 1919.)

[2] Leach, A. F. *Educational Charters*, p. xii. (Cambridge University Press, 1911.)

[3] Leach, A. F. *The Schools of Medieval England*, p. 55. By permission of Methuen and Company, Ltd.

In the sixth century, Gregory of Tours describes the situation as follows:

> Inasmuch as the cultivation of letters is disappearing or rather perishing in the cities of Gaul, while good deeds and evil are committed with equal impunity, and the ferocity of the barbarians and the passion of kings rage alike unchecked, so that not a single grammarian skilled in narration can be found to describe the general course of events, whether in prose or verse, the greatest number lament over this state of affairs, saying, "Alas for our age! for the study of letters has perished from our midst, and the man is no longer to be found who can commit to writing the events of the time!"[1]

In Italy grammar and rhetoric schools were still able to supply scholars and teachers for Charlemagne in the eighth century. The place of the grammar and rhetoric schools, when they disappeared, was taken by the monasteries and cathedral schools.

The monasteries. That the monasteries played an important part in conserving learning and as centers of study cannot be denied, nor does it detract from the importance of their contribution to doubt the extent to which they provided for the education of other than their own novitiates. Here and there in the early Middle Ages schools for *externs* existed in connection with monasteries, but that the practice was not considered desirable may be gathered from the prohibition by the Council of Aachen, in 817, of any but schools for *oblates* in the monasteries. After this date, little more is heard of schools for *externs*; the characteristic school of the Middle Ages, the school that constituted a link between the Roman grammar schools and the secondary school of modern times, was the cathedral school.

The cathedral schools. The cathedral school had its origin in the practice begun by bishops, after the disappearance of the grammar schools, of teaching small groups of students (from the age of seven up) who lived in their households. The earliest record of a bishop's school is found in the letter written in 595, by Pope Gregory the Great to Desiderius as Bishop of Vienne. Down to the end of the seventh or eighth century such schools were actually taught by the bishops themselves; after that period the educational function devolved on the schoolmaster, variously known as *magister scholarium*, *scholasticus*, *archischola*, etc. The establishment of schools associated with the mother-church of a diocese was fostered by Chrodegang of Metz (742–766), and a pastoral letter of 774 required that "every bishop shall, therefore, establish a school at his see and appoint an able teacher who understands how to teach and keep school according to the tradition of the Romans." [1] Similar schools had already been established in England, beginning with the foundation of the school at Canterbury, by Augustine, at the commencement of the seventh century. Royal interest in education is found in Theodoric, King of the Ostrogoths; in Chilperic, King of the Merovingians; in Sigebert, King of the East English; in Pepin, the father of Charlemagne; and, above all, in Charlemagne himself.

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[1] Mullinger, J. B. *Schools of Charles the Great*, p. 35. (New York, G. E. Stechert and Co., 1911.)

The zeal of Charlemagne for learning was not only manifested in the support given to his own palace school, at the head of which he placed Alcuin, but perhaps more significantly in the capitularies that he issued to the heads of churches and monasteries.

> We exhort you, therefore [he urges in the Capitulary of 787], not only not to neglect the study of letters, but to apply yourselves thereto with perseverance and with that humility which is well pleasing to God; so that you may be able to penetrate with greater ease and certainty the mysteries of the Holy Scriptures. Let there,

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[1] Specht, F. A. *Geschichte des Unterrichtswesens in Deutschland von den ältesten Zeiten bis zur Mitte des dreizehnten Jahrhunderts*, p. 13. (Stuttgart, 1885.)

> therefore, be chosen for this work men who are both able and willing to learn, and also desirous of instructing others, and let them apply themselves to the work with a zeal equalling the earnestness with which we recommend it to them.[1]

This was followed by the Capitulary of 789:

> Let every monastery and every abbey have its school, where boys may be taught the Psalms, the system of musical notation, singing, arithmetic and grammar.[2]

The provision of educational facilities was, however, not limited to the monasteries and cathedrals. The Council of Constantinople, 692, provided that any priest could send his kinsman to schools, and instructed priests in villages and towns to keep school and teach grammar to the children of the faithful without any remuneration except voluntary gifts, a provision repeated a century later, 797, in the canon of Thedolph of Orleans.[3]

In 826, the General Council under Pope Eugenius required that:

> all bishops shall bestow all care and diligence, both for their subjects and for other places in which it shall be found necessary, to establish masters and teachers who shall assiduously teach grammar schools and the principles of the liberal arts, because in these chiefly the commandments of God are manifested and declared.[4]

The ravages of the Northmen in the ninth century effectually checked the development of education for some time. The cause of the cathedral schools and of education in general is mentioned in the Council of Rome, under Gregory VI (1073–85), in the provision "that all bishops cause the art of grammar to be taught in their churches," [5] and is taken up again in 1179, by the Third Lateran Council, which provided for free education and for licensing of teachers without fees.

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[1] Mullinger, *op. cit.*, pp. 98 f.
[2] *Ibid.*, p. 102.
[3] Leach, A. F. *Educational Charters*, p. xxv.
[4] *Ibid.*, p. 21.
[5] *Ibid.*, p. 23.

> A cathedral church ought to provide a master with a benefice, that he may teach the clerks of the church and other poor persons gratis; and the seller of a license to teach, or preventer of a fit person from teaching, is to be deprived of his benefice.[1]

This injunction evidently was not carried out, for it was repeated in 1215 by Innocent III at the Fourth Lateran Council.[2]

Other schools. Side by side with the schools attached to the cathedrals there had also sprung up schools connected with collegiate churches, that is, churches administered by a college of canons. To these schools there came to be added in Germany, from the twelfth century onwards, schools established by town councils (*Stadtschulen*, *Ratschulen*, *scholæ senatoriæ*). The commercial and industrial development of the towns, combined with the general revival of interest in education in the twelfth century, exercised their influence on the town councils; schools of this type multiplied quickly, but differed from the cathedral schools only in that they were supported and the salaries of the teachers were maintained by the municipalities.

In England the era of school foundation by private benefactors and guilds did not begin until the fourteenth century. Here, too, the schools when founded were directly under the supervision of the educational authority of the dioceses. Included in these educational philanthropies were almonry schools, chantry schools, and hospital schools, of which some were elementary, and some grammar schools from the start or converted into grammar schools subsequently.[3]

Supervision of schools. The general character of secondary education, whether in the early or later Middle Ages, remained unchanged. It was, for many centuries, provided by the ecclesiastical authorities; later, provision was made from different sources. Whatever the origin of the schools, the aim everywhere was the same — to give a sound religious training and to prepare for service in the Church. At first under the direct personal supervision of the bishops, the schools soon came under the supervision of a special official, the *scholasticus*, or, as he came to be called in England after the twelfth century, the chancellor of the diocese. The duties of the chancellor were extensive; he appointed and dismissed teachers, drew up courses of study, admitted pupils, visited schools and conducted examinations; he superintended the archives, funds, and library of the foundation with which he was associated; and he himself taught, although such instruction was gradually limited to the theological training of the older students. The most important function of the chancellor was the general supervision of all schools and the licensing of teachers in the diocese, a right which frequently brought him into conflict with the non-ecclesiastical founders of schools, whether a city council, private benefactor, or schoolmaster who tried to set up a private school.

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[1] Leach, A. F. *Educational Charters*, p. 123; see also pp. 119 ff.

[2] *Ibid.*, pp. 143 ff.

[3] See Leach, A. F. *The Schools of Medieval England*, and *Educational Charters*.

That there was a plentiful supply of secondary schools during the Middle Ages is clear; that the fundamental aims continued unchanged also is certain. The same assertions cannot be made as definitely about the curriculum and studies in these schools. All that can be stated in general is that the studies fell, within the routine of the Seven Liberal Arts. The schools, however, varied greatly in size, in the length of the course, in a clear differentiation between lower and higher studies, and in the educational care and interest of the scholasticus or chancellor. Two objectives always dominated the curriculum; the first was an emphasis on moral and religious training, and the second preparation for advanced theological studies or, in the later Middle Ages, for university studies.

The curriculum. The early Christian schools, as was pointed out, continued the practices of the Roman grammar and rhetorical schools more or less until the sixth century. The conflicts on the study of pagan literature early led to the cultivation of a new type of literature, modeled on the classical, but dealing with religious themes and more adapted to Christian needs. Such works were the *Institutiones Divinæ* of Lactantius (c. 300), the *Historia Evangelica* of Juveneus (c. 330), the *Centones Vergiliani* of Proba (c. 400), the *Psychomachia* of Prudentius (c. 410), and the *Carmen Paschale* of Sedulius. Here the Greek and Roman practice of using literature for moral (and, in this case, religious) purposes was perpetuated, and the works mentioned continued to be used in schools until the sixteenth century. In general, however, the scope of the curriculum was confined, as is indicated in the regulations of the Council of Aachen (789), to the study of Psalms, writing, church singing, the computus, and grammar. Two years earlier, in the Capitulary of 787, Charlemagne indicated the general requirement of the time. Referring to letters that he had received, he states:

> We have observed that the thoughts contained in these letters, though in themselves most just, were expressed in uncouth language, and while pious devotion dictated the sentiments, the unlettered tongue was unable to express them aright. Hence there has arisen in our minds the fear lest, if the skill to write rightly were thus lacking, so too would the power of rightly comprehending the Sacred Scriptures be far less than was fitting, and we all know that though verbal errors be dangerous, errors of the understanding are yet more so. We exhort you, therefore, not only not to neglect the study of letters, but to apply yourselves thereto with perseverance and with that humility which is well pleasing to God; so that you may be able to penetrate with greater ease and certainty the mysteries of the Holy Scriptures.[1]

Hence, although the Psalms, writing, singing, and the computus or arithmetic necessary for writing out the Church calendar were given attention in the schools, the major part of the time was devoted to the study of grammar. This subject included, as it did in the classical period, the study of language, form, and style as well as literature, although the extent to which the latter was actually pursued is doubtful. Classical as well as Christian authors are mentioned side by side, but as the centuries wore on it is probable that acquaintance with the classics was obtained from excerpts used as illustrative material in the grammars, vocabularies, and phrase books. Where the emphasis was placed is indicated in a letter of Aldhelm (c. 680):

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[1] West, A. F., *op. cit.*, pp. 50 f.

> No small time must be spent in the study of reading, especially by one who, inflamed by the desire of knowledge, wishes at the same time to explore Roman law to the marrow, and examine in the most intimate fashion all the mysteries of the Roman lawyers; and what is much more difficult and perplexing, to digest the hundred kinds of meters into prose rules, and illustrate the mixed modulations of song in the straight path of syllables.[1]

Alcuin, describing the subjects taught in the cathedral school at York, mentions grammar, rhetoric, law, music, astronomy, arithmetic; the teacher, Archbishop Egbert, "above all, opening the mysteries of holy writ and disclosing the abysses of the rude and ancient law." Among the works available in the library of the cathedral, most of them by Christian writers, are also included Cicero, Vergil, Statius, Lucan, and Pliny. It must be noted that this period came at the close of a brilliant era of classical studies which had survived in Ireland[2] and had found its way thence into England.

The Seven Liberal Arts. The round of studies preparatory to the study of theology was included in the Seven Liberal Arts, of which three, the *trivium* — grammar, rhetoric, dialectic — were regarded as preparatory to the remainder, the *quadrivium* — arithmetic, geometry, music, and astronomy. Into the history of the origin and development of the Seven Liberal Arts it is unnecessary to enter. They were introduced into the Middle Ages by the *Marriage of Philology and Mercury* written by Martianus Capella in the fifth century, and were standardized in the next century by Cassiodorus in accordance with *Proverbs* IX, 1 ("Wisdom builded her house; she has hewn out her seven pillars").[1] The works on the seven liberal arts, or on individual arts, became the textbooks of the Middle Ages. Thus there are found not only the work of Martianus Capella, but also those of Cassiodorus (*De Artibus et Disciplinis Liberalium Literarum*), the *Etymologies* of Isidore of Seville, and works on one or more subjects by Boethius, Alcuin, Rabanus Maurus, and others.

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[1] Leach, A. F. *Educational Charters*, p. 9.

[2] Graham, H. *The Early Irish Monastic Schools.* (Dublin, 1923.)

Grammar. In the secondary schools, grammar became the most important subject, and in many ways this was inevitable. It met a practical need — preparation for the mastery of a language, Latin, which was indispensable not only for the purposes of study and church service, but for practical careers as well, wherever literary preparation was required. Nor is it surprising that its study should have occupied most of the time of the grammar school pupils, who entered school at about the age of seven, possibly already able to sing and recite some Latin. Books were scarce, and so too were writing materials; hence the method of teaching consisted in the teacher's reading his own copy out while the pupils took down notes on their waxen tablets. So common was this method that the Latin term for reading (*legere*) became synonymous with teaching. This dictation was followed by frequent repetitions and explanations. Often, too, where a manuscript was accessible, ability to read it was a difficult art, even in the case of a simple textbook in grammar, such as the *Ars Minor* of Donatus. Hence, so far as the pupil was concerned, much of his work consisted in memorizing the lessons dictated by the teacher. None the less grammar, as early defined and as long employed, was intended to be a practical study ("ability to speak beautifully acquired from studying famous poets and orators," as Cassiodorus said, or, as Isidore of Seville defined it, "the science of speaking correctly and the foundation of liberal letters").

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[1] See Abelson, P. *The Seven Liberal Arts.* (New York, 1906.)

The grammar that was most widely used throughout the period was the *Donati de Partibus Orationis Ars Minor*, more generally known as the *Ars Minor*, *Donatus*, or *Donat*, written by Ælius Donatus, a rhetoric teacher in Rome about 350. Not only was this work used for a thousand years for the teaching of grammar, but it probably exercised an important influence in standardizing grammatical nomenclature. Its closest competitor was the *Institutio de Arte Grammatica* by Priscian (c. 526), divided into eighteen parts, of which sixteen deal with accidence and two with syntax. Its quotations from more than two hundred and fifty classical Latin authors added to its serviceability as a textbook. These two books of Donatus and Priscian held almost undisputed sway until the appearance of the *Doctrinale* of Alexander de Villedieu (or Alexander de Villa Dei), in 1199 — a work of a different character, not merely because it was written in verse and thus easier to memorize, but because it employed words from the Scriptures and current Latin speech and because it emphasized the logical aspects of grammar under the influence of the scholasticism of the day.

Colloquies and readers. To meet the need of vocabularies for everyday use, since Latin was taught as a spoken language, there early appeared a type of textbook which was to become more popular after the Renaissance. These were colloquies dealing with everyday life, and serving at the same time as storehouses of words and phrases to be used by the pupils. The following extract, from the *Colloquy* of Abbot Ælfric (1005), may serve as an example:

> *Boys:* Master, we children ask you to teach us to speak correctly, for we are unlearned and speak corruptly.
>
> *Master:* What do you want to say?
>
> *Boys:* What do we care what we say so long as we speak correctly and say what is useful, not old-womanish and improper.

> *Master:* Will you be flogged while learning?
>
> *Boys:* We would rather be flogged while learning than remain ignorant; but we know that you will be kind to us and not flog us unless you are obliged.[1]

It is notable that the *Colloquy* was written with an English translation, and that Ælfric also wrote a translation of parts of Priscian's *Grammar*, because, as he explains:

> I, Ælfric, as not being very learned, have taken pains to translate these extracts from the larger and smaller Priscian for you tender children into your own Language, so that when you have gone through Donatus on the Parts of Speech, you may be able to instil both languages, Latin and English, into your youthful minds, by this little book, until you reach more advanced studies. I am aware that many will blame me, for being willing to devote my mind to such a pursuit as to turn "The Art of Grammar" into English. But I destine this lesson-book for little boys who know nothing, not for their elders.[2]

Ælfric, however, was not alone in simplifying the study of Latin with the help of translations. A contemporary in the eleventh century, Notker of St. Gall, wrote texts for his pupils in German "because in the vernacular can be more readily grasped what can be understood scarcely or at all in a foreign language." [3]

Introductory readers of a simple kind supplemented the vocabularies and word books. The most popular type consisted of Phædrus's *Fables*, or books based on these. Another favorite type of textbook was the ethico-didactic, the best example of which is Cato's *Disticha de Moribus*. "Cato discourses on such subjects as adversity and prosperity, on friendship and enmity, on credulity and contentment, on sobriety and frugality, on the inanity of glory, on avarice and adulation, on ingratitude and anger and so on."[1] This work continued to be commonly used until the seventeenth century.

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[1] Leach, A. F. *Educational Charters*, pp. 37 ff.

[2] *Ibid.*, p. 49.

[3] Specht, F. A., *op. cit.*, p. 313.

Literature. On the actual reading and study of literature the evidence is not so clear. There was no doubt widespread acquaintance with classical writings, and there were always isolated centers where the classics were studied. Evidence, however, is lacking as to the extent to which these penetrated into the schools. The use of religious matter in the schools was general and persisted into the sixteenth century, but the chief contribution of the Renaissance was the reintroduction of the classics. Except for the revival of Chartres and Orleans there was in fact a decline in, and even opposition to, the study of the classics. Thus Alexander de Villedieu writes, "Nothing should be read which is contrary to the Scriptures." Indeed, the rise of the universities and the spread of scholasticism affected schools adversely in this field.

Other subjects. The other subjects of the *trivium*, rhetoric and logic, received some but not extensive attention. Rhetoric was less a study of theory than a training in the rules for writing letters and official documents (*ars dictandi* and *dictamen*). Indeed, Rabanus Maurus (784?–856) thought that:

> It is sufficient if youths give some attention to the study of rhetoric. Even then not all who expect to enter the priesthood, but only those who are not as yet obliged to devote their time to pursuits of greater usefulness should study the subject. At any rate one who wishes to acquire the art of eloquence can do so more advantageously by reading and hearing great orators than by studying the rules of rhetoric.[2]

The times no longer called for skill in oratory, and many of the leaders in the Church in fact preferred rusticity of speech in order to reach the masses.

Logic was, according to Rabanus Maurus, "the science of reason able to inquire, define, and discuss as well as to distinguish true from false." It was the last aspect of it, its assured value in training to detect heresies, that made the chief appeal. As a school study it does not appear to have had an important place.

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[1] Watson, F. *The English Grammar Schools to 1660*, p. 122. (Cambridge University Press, 1908.)

[2] Abelson, P. *Op. cit.*, p. 53.

Of the other subjects of the seven liberal arts, there are found only arithmetic, which dealt with enough computation for the calculation of Easter and with the theory and properties of arithmetic, and music which was mainly theoretical, the practical side being cultivated through church singing. Sciences, in so far as they were taught, consisted mainly of definitions of natural phenomena as they might be mentioned in the texts that were read in the grammar course.

The chief aim. The secondary school of the Middle Ages accordingly placed its chief emphasis on the teaching of grammar, including much study of words and language and less literature. In this the school was adapted to the needs of the time; the purpose was not to impart a liberal culture, but to prepare for the subsequent study of theology. If education in the medieval period is characterized by uniformity, it must be remembered that uniformity and institutionalism were its main features. Nor did the rise of the universities with their cultivation of scholasticism affect secondary education favorably. It is significant that Paris soon surpassed Chartres and Orleans, where for a brief space literary studies flourished. In practice the influence of the universities was not merely to emphasize the study of grammar proper but to strengthen a tendency to logical hair splitting. Rules of logic rather than practical examples were now invoked to solve grammatical difficulties, and instead of serving as a practical training in the use of language, grammar came to be an exercise in disputation.[1] Thus William Fitzstephen, writing of London in 1118, refers to this practice:

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[1] See Paetow, L. J. *Arts Course at Medieval Universities*, pp. 35 ff. (Urbana, 1910.)

> In London the three principal churches have celebrated schools of privilege and ancient dignity.... On feast days the masters celebrate assemblies at the churches, *en fête*. The scholars hold disputations, some declaiming, others by way of question and answer. These roll out enthymemes, those use the better form of perfect syllogisms. Some dispute merely for show as they do at collections; others for truth, which is the grace of perfection. The sophists using the Socratic irony are pronounced happy because of the mass and volume of their words; others play upon words. Those learning rhetoric, with rhetorical speeches, speak to the point with a view to persuasion, being careful to observe the precepts of their art, and to leave out nothing that belongs to it. The boys of the different schools vie with each other in verses; or dispute on the principles of grammar; or the rules of preterites and supines.[1]

This practice of interscholastic disputation, of opposing and answering, survived in London, according to John Stow, author of a *Survey of London* (1596), to the middle of the sixteenth century.[2]

Decline of secondary education. Secondary education in the Middle Ages began by being definitely practical in its aims — to give a moral and religious training and to prepare for higher studies. It began to degenerate, as all education degenerates, when the means selected to accomplish these aims became ends in themselves, when the schools and those concerned in them failed to adjust their work to changing conditions and to adapt them to new needs. In this the medieval period was no more reprehensible than any other period in the history of education. Undoubtedly nineteenth-century notions on the darkness of the Middle Ages must give way to an appreciation of the fact that in education, at any rate, the period maintained the continuity of institutions, and that sporadically, here and there, the torch of learning was kept alight. The standards by which these contributions must be measured should be the standards of contemporary life; when the demands for a new type of secondary education began to make themselves felt, it was possible to meet them because in the so-called "dark ages" the new content for which men were yearning had been preserved.[1]

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[1] Leach, A. F. *Educational Charters*, pp. 83 ff.

[2] Leach, A. F. *The Schools of Medieval England*, p. 262.

Guild education. The education given in the schools so far discussed reached only a portion of the population, those destined for the several orders in the Church. It set up, it is true, a distinction that has continued to the present time between the scholar-clerks, the learned, intellectual class and the rest, and a distinction between study and occupation with practical, everyday affairs. This education constituted only one type, at any rate in the second half of the Middle Ages. The guilds played an important part through their apprenticeship systems in training the artisans and skilled craftsmen, and to that extent provided the vocational education of the period. A third type, the educational training associated with the institution of chivalry cannot be ignored, partly because it did constitute an important form of training for the period, and partly because it fostered ideals which in later centuries were to be incorporated into the activities of secondary schools side by side with the intellectual preparation.

Chivalric education. Chivalry represented a social institution which originating in the military and territorial system of the Teutons, became fixed in the feudal relations between landholders and tenants and carried social obligations under the sanction of the Church. It assumed definite form during and after the Crusades, and developed a definite code that governed the moral and social relations of the noble classes. Specifically it placed the military spirit in the service of religion, and idealized fighting, religion, and the relations between men and women. The noble classes, the knights, were imbued with ideals of courage, pride, honor, self-respect, of service, self-restraint, and obedience. The code instilled reverence for superiors, consideration for inferiors, gentleness to sex, and set up standards of courtesy and gallantry.

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[1] See Hearnshaw, F. C., ed. *Mediæval Contributions to Modern Civilization.* (New York, Henry Holt and Co., 1922.)

Schools as such for training in these standards and ideals did not exist; they were acquired by a system of apprenticeship which began at about the age of seven. After an education at home, in which the young boy learned perhaps the rudiments of reading from his mother, he joined the household of a lord or baron, secular or spiritual. In the former case he became an attendant on the ladies of the castle. Here as page (*damoiseau*, *domisellus*, or *valet*) he was taught letters, such games as chess, backgammon, and draughts, etiquette and manners, and received a religious training. While the intellectual studies were no doubt slight, they included the learning of poetry, history, and heraldry, which was closely allied with history. Physical exercise, running, leaping, riding, hunting, and hawking, constituted an important part of the training under the direction of senior boys, who had already reached the second stage of the course to knighthood, that of squire. It was the function of the older boys to

> lerne them to ryde clenely and surely, to draw them also to justes, to lerne them were their harness, to have all curtesy in wordes, dedes, and degrees... moreover to teche them sondry languages and other lerninges vertuous, to harping, to pipe, sing, dance... with corrections in their chambers.[1]

It was an arduous training based, like the later English institution of fagging, on the principle that the best training for obedience and independence is to learn to serve and be served by equals.

The second stage was entered after seven years as page, at the age of fourteen, and continued for another seven years as squire attendant on a knight or lord. During this period he learned the art of warfare and of military service and continued his training in athletic sports.

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[1] Quoted from Furnivall, *Forewords*, in Cornish, F. Warre, *Chivalry*, p. 64. (London, George Allen & Co., 1911.) See also Prestage, E., ed., *Chivalry*. (New York, 1928.)

> But he was still under domestic tutelage. He waited or carved at table, prepared the hall for dancing or the entertainments given by tumblers and minstrels, and, in his most advanced stage, was "squire of the body" to his lord, a position beyond which some never advanced, for "squire" was a term of social rank as well as a title of office. But every squire was "squire of dames," in which connexion he was singer, harper, dancer, and sometimes poet.[1]

Chivalric education, then, cultivated aspects of education — the physical and to some extent the æsthetic — that were neglected in the grammar schools. From another point of view the importance of chivalry may be measured in that it stimulated, through furnishing themes for romances and *chansons de gestes*, the rise of vernacular literature. When the medieval period closed, the place of chivalric education was taken by the system of education of gentlemen, which in turn originated in a sense of the inadequacy of intellectual training pure and simple. The practice of sending boys away from home for their education, widespread in Europe down to the seventeenth century, established a custom which was to survive as a feature of English education.

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[1] Adamson, J. W. *A Short History of Education*, p. 53.

CHAPTER IV

HUMANISM AND EDUCATION

The Revival in Italy

The Renaissance. The educational system of the Middle Ages contained within itself the seeds of its own decline. It had developed a curriculum and a technique that was static, unchanging, and ill-adapted to meet the new demands that a rapidly changing world was making on the school. In an age when other medieval institutions were crumbling, when feudalism disappeared, when nations arose to question the authority of the Church and Empire, when City-States were rising to power through the development of trade and commerce, when a new middle class began to emerge, when new worlds were being discovered and new inventions were being produced, the secondary school alone, strongly entrenched and institutionalized as it was, could not hope to perpetuate longer a tradition of method and content that had been accumulated over a period of a thousand years. To later centuries it bequeathed the school as an institution far more widespread and accessible than was usually believed until recently; it remained the task of the new era, sometimes called the Renaissance, sometimes the Age of the Revival of Letters, and sometimes the period of humanism, to put fresh life and vigor into the school and to adapt it to the needs of contemporary society.

The term Renaissance is applied to the period of transition from the medieval to the modern world, and is not subject to an all-embracing definition. It implies the awakening and release of the spirit of man in all his varied relations to other men and to nature. It meant the revival of a feeling of self-confidence and of joy of living in this world; it expressed itself in mental freedom and a yearning for the development of the intellect un-encumbered by the restraints of external authority. There were substituted for the interest in the next world an interest in humanity and in nature; for the individual condemned to a life of asceticism a personality active as a citizen and as a member of society. Humanism, or the recognition in general that "the noblest study of mankind is man," is substituted for religion and divinity. The Renaissance thus ushered in the modern spirit and new spiritual values which were to manifest themselves equally in all fields of human endeavor in the course of subsequent centuries. That the first manifestation was in the revival of a forgotten culture tended to obscure other consequences that have made the modern world.

Italy the center of the movement. That Italy should have been the center of the revival of interest in the culture of the classical period was no mere accident. Italy had been somewhat less affected by scholasticism than other countries, and there had always persisted a feeling of kinship with the glorious days of Rome which had kept a patriotic sentiment alive. The rise in the fourteenth and fifteenth centuries of individuals of power and wealth and of strong City-States afforded that patronage that was necessary at once to stimulate and to employ the new enthusiasm for humane letters (*litteræ humaniores*) once it began to manifest itself.

This enthusiasm showed itself in an eager desire to know all about that civilization whose monuments were evidences of its glories. Combined with this was a genuine zeal for the restoration of Latin to its original purity, free from the barbarisms in which it had been buried during so many centuries. With this went an overwhelming interest in the best that had been said in the past as a guide for conduct and thought in the present, and as a means for self-expression. To write like the ancients, and to think like them came to be a claim to personal distinction — the new mark of the individual emancipated from the trammels of authority. Petrarch, the first modern, embodied in himself all the characteristics of the Renaissance period — its self-confidence and self-reliance, its joy of living, its interest in the past shown in his search for ancient manuscripts, and in its desire for personal distinction on earth (*fama*, *gloria*, *laus posteritatis*) rather than a reward in the hereafter.

For this newly awakened interest and talent there was ample scope. The universities for a long time remained aloof from and suspicious of the new movement, but in society there was an ample field for polite intercourse, for discussion, and for conversation characterized by elegance of speech, good judgment and taste, and ability to express ideas drawn from the sources of ancient learning. A new interpretation and a new distinction was given to the view that "manners makyth man," and again, as in the past, was the association between learning and morals revived. It was not merely in the social routine that the new learning was valued and appreciated. A knowledge of letters and a mastery of elegant style in speech and writing now came to be not merely the qualifications necessary for distinction, but the essentials for preferment in public and private employment as well. Latin as the key to a vast storehouse of information, and employed according to the best models of style, was now necessary for communication, for travel, and for the professions. It was a tool that was required by diplomats, by officials and secretaries, by pleaders, and by men of affairs as well as by scholars. Poetry and eloquence thus became the characteristics of the educated man, and a liberal education implied not merely a knowledge and mastery of both but their application in practice.

Latin and Greek. The prestige enjoyed by Latin and Roman culture was soon shared by Greek, but not to the same degree at first owing to the lack of good teachers and of materials for study. Greek, however, became a fashion, and the search for manuscripts was pursued with as much zeal and earnestness as the search for manuscripts in Latin. The arrival of Manuel

Chrysoloras in Florence, and his lectures in Greek there for three years aroused widespread enthusiasm for the language and its culture, although their study never became as thorough and scholarly as that of Latin. Indeed, it was virtually not until the eighteenth century that the study of Greek was pursued with the same earnestness, the same intensity, and the same desire to discover its meaning for contemporary life with which Latin was studied during the Renaissance.

The revival of letters was essentially a revival of Latin letters. It was not merely because the materials and apparatus for their study became more easily available, but because Latin served a definitely practical purpose for the time. There was no need to apologize for its inclusion as an instrument of education or for its disciplinary or character-forming values; these were rationalizations that were to come later. It was sufficient that it provided then the only means for higher education, serving practical ends, and opening up vast storehouses of information, knowledge, and culture that to those who studied them appeared to have as much practical value as when they had been written some fifteen centuries earlier. Greek, though included in the revival, was supplementary to and explanatory of much that was found in Latin. A new and a different value was to be assigned to Greek, as a key to the study of the New Testament, when the Renaissance movement began to affect the countries of northern Europe.

New schools in Italy. When the Renaissance movement came to be translated for educational purposes, ready guides were found in Plutarch, whose *Education of Boys* was translated by Guarino in 1411, and in Quintilian's *Institutio* (discovered by Poggio in 1417) and in Cicero's *De Oratore* (discovered in 1422). Liberal education was defined as that education which is worthy of a free man; it implied the intellectual, moral, æsthetic, and physical development of the individual for true fulfillment of complete life as a citizen. It emphasized perfection of the individual and personal distinction which comes from good carriage and deportment, power of conversation, proper use of leisure, and refined taste and manners. On the intellectual side it was to be marked by sound judgment and wisdom based on knowledge of the classics, and by ability to express one's self, eloquence; on the moral side, integrity of conduct and a public spirit were to be cultivated; on the æsthetic emphasis was laid on style in expression, on the development of taste in poetry, and on the cultivation of music. All education is governed by the social aim which is so well expressed by Vittorino da Feltre, the first great modern schoolmaster:

> Not every one is called to be a lawyer, a physician, a philosopher, to live in the public eye, nor has every one outstanding gifts of natural capacity, but all of us are created for the life of social duty, all are responsible for the personal influence which goes forth from us.[1]

The problem for the Renaissance educator was not merely one of borrowing the ideals of classical teachers, but to adapt them to the needs of a Christian society. Piety and orthodoxy may not have been the characteristics of the leaders in the Renaissance movement, but the school was compelled to take account of what continued to be one of the leading motives of social education — religious training. Hence the aim of one of the outstanding schools of the Italian Renaissance, the Casa Giocosa of Vittorino da Feltre, was the training of the educated Christian gentleman, an aim which, as *pietas litterata*, was to dominate secondary education for several centuries. Vittorino's school attempted to reconcile classical literature, Christianity, and the ideals of chivalric education.

Importance of Vittorino's work. Vittorino's school not only put the new ideals into effect, but it marked a new note of another character. The classics had been eliminated from the medieval schools because of their pagan and immoral content. Vittorino, accepting the new instruments of education, ranged over the whole of classical literature, selecting them carefully for their moral influence. This use of literature for purposes of moral instruction was to be a characteristic feature of secondary education in England later. The classics also were used for intellectual and informational ends; they were to serve as the sources of knowledge in natural science, history, and geography, as well as to give a training in language and expression. At all times he emphasized the vital, living elements of the content studied — style, good taste, beauty of form, and power of expression were the outcomes on the practical side, for eloquence, cultivated through theme-writing and declamation, was regarded as the chief end of a liberal education. A mathematician of distinction himself, Vittorino did not neglect this branch of learning, just as he devoted time to music, the æsthetic and moral value of which he recognized. On the physical side he is said to have given attention to the diet and clothing of his pupils, provided for an alternation of studies, and insisted on periods of recreation, while on the practical side he provided instructors in a variety of games and sports. Keenly interested in his pupils as individuals, he watched their natural bent and ability with the true insight of the teacher. Finally, his emphasis on the school as a social community marks him out as a modern schoolmaster in still another direction. Vittorino's importance for all times, however, rests on his adaptation of the literatures of Greece and Rome to the new needs that they were to serve in a new world.

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[1] Woodward, W. H. *Studies in Education during the Age of the Renaissance, 1400–1600*, pp. 12 f. (Cambridge University Press, 1906.)

While Vittorino's work captures the imagination, it must be remembered that his school was only one of a number of private schools, maintained by wealthy patrons, which during the fifteenth century helped, more than the Italian universities, to spread the educational ideals and practices of the Renaissance.

Although they were private schools, their activities were not altogether confined to the wealthy and upper classes alone. They succeeded in the comparatively brief period of their existence, the fifteenth century, in instilling a new spirit into educational theory and practice. Even more than their revival of the classical emphasis on individual development, they contributed to restore to humanity the treasures of Greek and Roman thought, to set up standards of style in prose and verse, and to lay the foundations for the rise of modern literature everywhere. The most enduring contribution made was the awakening of a new spirit of freedom and reason, which, though it was to be temporarily overclouded by a new type of obscurantism, was to unite with other Renaissance influences and to make the civilization of the modern world.

The Revival in Northern Europe

Different basis to the North. The educational system of the Italian Renaissance was essentially an education for the upper classes, but adequate scope was provided for the poor boy of ability who was able to distinguish himself in letters. When humanism and its ideals caught the imagination of the peoples of northern Europe, they were hailed not merely as means for self-culture of the individual but as the basis for social, moral, and religious reforms. In the revival of the classics was to be found a new civilizing agency for the removal of ignorance and for the acquisition of wisdom in all departments of life. All the leaders, whether Catholic or Protestant, would have agreed with the statement of Erasmus that:

> Zealous Greece discovered the arts; thereafter Latium, when battle had been joined, surpassed her in arms and almost equalled her in letters and oratory. Some made it their business to investigate the hidden causes of things, others, bound by Promethean chains, took note of the wandering courses of celestial fires. There were those who essayed to pierce the secrets of Divinity, one dis-

> covered the theory of argument, another that of oratory; some have portrayed most shrewdly the conduct of mortals, others were zealous in transmitting history to posterity. How great the labor of Antiquity in laws, in philosophy! To what end is all this? That we should begin to despise it? Or is it not rather that the one religion should through these fairest studies be honored and sustained? Christ intended for the good of His Church everything that by the Gentiles was stoutly done, spoken with knowledge, acutely thought or diligently written. *He* gave the intellect, *He* added the ardor of inquiry, nor did they find answer to their questions by the aid of any other. Their age bore this fruit of the arts not for themselves, but for us.[1]

Hence the German and English humanists, whether Catholic or Protestant, utilized the new instrument of learning for practical ends — for the removal of ignorance as a menace to society and for social reform. The educational Renaissance in the North was essentially a moral, democratic, and social movement, aiming at a reconciliation of the classical spirit with Christianity; while it accepted the development of the individual as a goal of education, it balanced this with a training in humility and a sense of social service, instead of accepting individual development for personal accomplishment and distinction as the sole ends of an education. Both those who remained loyal to the Church, and those who accepted the leadership of Luther and Calvin, were agreed that the greatest menace to true religion was ignorance; both agreed that the best instrument for enfranchisement of the spirit was to be found in a deep study of the classics. The difference between the two sides was that the one was content to remove the external abuses by education; the other insisted on carrying the protest to a complete reform of doctrine.

The reorganization of schools. On both sides a reform of education and a reorganization of schools followed almost immediately on the recognition of the needs in the social and religious aspects of life. If the classics were selected as the foundation of education it was not merely because no other means were available, but through a firm and sincere conviction of their practical value. Hence reform, whether within or outside of the Church, demanded a new type of curriculum and a new spirit in the schools.

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[1] Erasmus. *Antibarbari.* Translated in Adamson, J. W., *op. cit.*, p. 108. (Cambridge University Press, 1919.)

The task was not simple. For centuries the medieval schools had been devoted to cultivating a narrow round of knowledge, and the sway of scholasticism made the universities suspicious of any innovations. The extent of this opposition is indicated in the *Antibarbari* of Erasmus, and in the *Epistles of Obscure Men.* "It is a heresy to know Greek literature or to speak as Cicero spoke," and "Beware, they say, he is a poet; he is too little of a Christian," writes Erasmus of the attitude of the opponents of humanism. The state of learning at the University of Paris is indicated in a letter received by Erasmus from a friend in 1517:

> I am greatly disappointed in my hope of practising Greek, for which purpose I came to Paris; so far as I can remember no one is lecturing publicly or privately upon an outstanding Greek author. Bands of sophists by the thousand are clamoring about me. I recently attended a disputation at the Sorbonne, where I heard extraordinary applause, such as might have been heard in Pompey's Theater. With great difficulty I refrain from laughing; but no one else laughed at the great battle of pigeon's milk. For they were very angry with Adam, our first parent, because he had eaten apples and not pears; and those haughty persons could hardly keep from railing about it. But at last theologic seriousness conquered anger, and Adam escaped with lucky omens and without a wound. And I too went away, satiated with nursery tales. And so I stop at home, humming there at my ease, and delighting in Horace, or with Democritus deriding a stupid world.[1]

Immediate effect. The leaders of the Reformation were at one with Erasmus in accepting the need of the new education for the success of their own movement, but the immediate effect of the change which shook the whole social fabric to its foundations was probably a surprise to the advocates of education. There is adequate evidence, both in Germany and in England, that the rise of Protestantism was accompanied by a considerable decline in the number of schools and scholars. Disturbed social conditions are not conducive to the promotion of study and scholarship. "Where Lutheranism prevails, there the sciences decay," wrote Erasmus, and Melanchthon, on the other side, states:

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[1] See Adamson, *op. cit.*, p. 110.

> Studies which should develop the intelligence as well as morals are neglected and nothing is left of general knowledge; what is called philosophy is empty, fruitless deception which leads to quarreling. True wisdom which came down from Heaven to control men's emotions is banished.

Luther in 1524 warns that:

> Everywhere schools fall into decay. It will come to such a pass that schoolmasters, pastors, and preachers must resign and devote themselves to handwork.

Again, in 1530, he points out that:

> The universities of Erfurt and Leipzig and many others are deserted, as well as boys' schools everywhere, so that it is lamentable to think thereof, and little Wittenberg almost alone must do its best.[1]

This decline was due, however, to a number of factors beyond the control of the leaders. The confiscation of church property meant at that time the destruction of schools and educational opportunities; the same cause led to the disappearance of preferments and emoluments for those who had had an education; while still another result was that the secular authorities, now relieved from the pressure of the clergy, no longer cared to support schools. The continued wars of the period did not contribute to the improvement of a situation that was already bad, while to all these causes must be added the active opposition to learning of one sect of the Protestants that was for a while strong.

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[1] Mertz, G. *Das Schulwesen der deutschen Reformation im 16 Jahrhundert*, pp. 1 ff. (Heidelberg, 1902); Janssen. *History of the German People at the Close of the Middle Ages*, I, chaps. II–IV. (St. Louis, Mo., 1896.)

Conditions in England. Nor were the conditions better in England. However honest the intentions of Henry VIII and of Edward VI, or their councilors may have been in passing the Chantries Acts of 1545 and 1547, the net result was a destruction of schools, and the purpose of these Acts was in general to vest the endowments of collegiate churches, chantries, guilds, and other such institutions in the Crown with the object of "alteration, change, and amendment of the same and converting to good and godly uses, as in erecting grammar schools, to the education of youth in virtue and godliness, the further augmenting of the universities, and better provisions for the poor and needy." The actual result was the conduct of a survey of the institutions in question, and the confiscation of the property of the majority. In addition to causes similar to those found in Germany, England was at this time also confronted with a number of social and economic changes consequent on the Wars of the preceding century, a condition reflected in Hugh Latimer's statement in 1549 that "now charity is waxen cold, none helpeth the scholar, nor yet the poor." [1]

A picture of the situation in the middle of the century is given by Thomas Lever, Master of St. John's College, Cambridge:

> But now many Grammar Schools be taken, sold, and made away to the great slander of you and your laws, to the grievous offence of the people, to the most miserable drowning of youth in ignorance, and sore decay of the Universities....
>
> Take heed unto the King's statutes. There ye shall find that the Nobles and Commons do give, and the King doth take into his hands Abbeys, Colleges, and Chantries for erecting of Grammar Schools, the godly bringing up of youth, the further augmenting of

[1] Adamson, *op. cit.*, p. 141.

> the Universities, and better provision for the poor. This ye shall find in the Acts of Parliament and in the King's statutes. But what shall be found in your practice and in your deeds? Surely the putting down of Grammar Schools, the devilish drowning of youth in ignorance, the utter decay of Universities.[1]

That the situation had not improved when Elizabeth came to the throne may be gathered from a statement of Thomas Williams, Speaker of the House of Commons:

> I dare say a hundred schools want in England, which before this time had been: and if in every school there had been but an hundred scholars, yet that had been ten thousand; so that now I doubt whether there be so many learned men in England, as the number wants of these scholars.[2]

The reform of secondary education. Notwithstanding these adverse developments, before the close of the sixteenth century both Germany and England were filled with a network of schools that embodied the ideals of the humanistic Renaissance and supplied the leaders in Church and State. The methods by which the demand for schools was met differed in the two countries; in Germany the schools were established by action of the separate States, in England through the philanthropy of individuals or groups of individuals; in both countries the schools were established under the supervision, more or less direct, of the ecclesiastical authorities; in both the educational ideals were the highest ideals of the humanists.

Brethren of the Common Life. Before proceeding to a detailed consideration of the founding of Protestant schools in Germany and England reference must be made to the first modern schools, which had already sprung up in the Netherlands and northwestern Germany before this movement began. In the last quarter of the fourteenth century a group of mystics was organized in Deventer, under the leadership of Gerhard Groote and Florentius Radewynius, to live together and devote themselves to prayer, discussions of religious subjects, and the copying of manuscripts. Known variously as Brethren of the Common Life, Hieronymians, Gregorians, and *Fratres Scholares*, they soon turned their attention to the wandering students who flocked to the school at Deventer without any preparation and under no moral control. For these hostels were opened by the Brethren, and in return the students assisted in the copying of manuscripts. Then the practice arose of giving the students tutorial assistance in their school work, and with such success that the tutors were invited to teach in the schools not only in Deventer but in other towns of the Netherlands. This success led in time to invitations to the Brethren to take full charge of schools or to open new institutions. By the end of the fifteenth century the whole of the educational system of northwestern Europe was under their influence.

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[1] Leach, A. F. *English Schools at the Reformation, 1546–48,* pp. 78 f. (Westminster, 1896.)

[2] Monroe, P. *Cyclopedia of Education,* s.v. "Elizabethan Schools."

The most important contribution of the Brethren in the field of education lay in the introduction of order amidst the chaos into which the medieval schools had fallen. They introduced classification of pupils, into six or eight classes, with a graded course of study; they supervised the intellectual and moral progress of their pupils; they developed a stable and a continuous body of teachers, drawn from the best universities; in a rudimentary way they trained some at least of their future teachers by allowing the senior pupils to teach the younger. Finally, they adopted the humanistic curriculum, combining a love for literature with religious devotion (*pietas litterata*) and including the study of the Scriptures, Greek and Latin authors, and history and geography. Some of the leading scholars and teachers of the day were educated in the schools of the Brethren, including such men as Thomas à Kempis, Rudolf Agricola, Buschius, and Erasmus, who, however, had little to say in their favor. Another noted pupil was Johann Sturm, through whose influence the system of the Brethren was spread throughout Germany, for it was with reference to it that Sturm wrote: "Nor do I see how that infrequency of studies can be avoided and removed throughout Germany except by an education of this type in early youth." [1]

Reform in Germany. Thus when the German States addressed themselves to the task of organizing schools in accordance with the principles of the Reformation, a model was available in the schools of the Brethren of the Common Life. The establishment of schools, both elementary and secondary, went hand in hand with ecclesiastical reform. In some cases both were the subject of the same visitations or surveys, made by the ecclesiastical authorities to discover general conditions and needs; in others educational surveys were conducted independently, but under the same authorities. The conduct of the surveys, especially of the school surveys, was entrusted to a small number of specialists; thus Melanchthon and Bugenhagen each conducted an extensive number of surveys which resulted in the organization of school systems, local or state-wide, and which served as models elsewhere. The results of the surveys were embodied in church or school ordinances, whose purpose, so far as secondary education was concerned, was to secure strictly Protestant schools, to provide adequately for their support, to train a suitable supply of talented boys for positions of leadership, to establish proper supervision, and, in general, to secure some system and order. The ordinances varied in extent and ground covered; some included time-schedules, courses of study, methods, and rules of conduct for pupils and teachers; others covered only a few of these items.[2]

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[1] Monroe, P. *Cyclopedia of Education*, s.v. "Brethren of the Common Life"; and Bonet-Maury, G. *De Opera Scholastica Fratrum Vitæ Communis.* (Paris, 1889.)

[2] See Robbins, C. L. *Teachers in Germany in the Sixteenth Century*, chap. I. (New York, 1912.)

The reasons for the establishment of secondary schools stand out clearly in the ordinances, and as will appear from the following quotations remained essentially unchanged throughout the sixteenth century. Thus according to the School Ordinance of Saxony, drafted in 1528:

> The clergy shall urge the people to send their children to school in order that there may be educated men able to teach in the churches and also to govern.... A supply of able men is needed not only in the churches but for secular government as well, as is also according to the will of God.

The Church Ordinance of Württemberg, issued in 1559, provided in a section on schools for the establishment of Latin schools in all towns and cities and in a few of the most important villages, "because well-trained, wise, learned, able, and God-fearing men are needed for the holy office of preacher, for secular leadership, for temporal offices and government and for management of their homes." Coming nearer to the close of the century the School Ordinance of Saxony, 1580, illustrates the persistence of the same aim:

> No reasonable being doubts that without God-fearing, wise, well-trained, learned, able and well-experienced men, the holy office of preacher, secular leadership, and a variety of administrative offices as well management of homes cannot in the long run be maintained in good, praiseworthy order.

Since such men cannot be created by a miracle, then "some must have their minds trained and educated for many a year through the orderly and God-given means of the schools."[1] The purpose of education then was to train leaders for religious and secular life, to conduct the offices, both public and private, in Church and State. The aim, in other words, was social and religious, and the schools were established, and in Germany continued to be maintained, under the authority of both the

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[1] See Vormbaum, R. *Evangelische Schulordnungen, passim.* (Gütersloh, 1860.)

Church and State authorities, a partnership which was not dissolved until the Revolution in 1918. The result was in many cases an almost meticulous prescription of time-tables, courses of study, textbooks, and methods of instruction and government.

Reform in England. The difference in the national characteristics of England and Germany emerge at this point. Important as the reorganization and foundation of schools was to the State, it refrained, except in the frustrated promise of the Chantries Acts, from taking any steps in this direction. The only official intervention came through the visitations and licensing regulations of the ecclesiastical authorities. Schools were established by individuals or groups of individuals, such as guilds and guild members, burgesses of cities, parishes, and individual benefactors of means in all classes of society. While there do not appear to have been any royal founders, their interest, at least, was enlisted and perpetuated in the names of the schools.[1] As in Germany, the motives for the founding of schools did not change, but there was this difference that while the German aim was stated in terms of religious and political needs, the English aims emphasized the intellectual, moral, and religious training of the individual. Thus, in refounding St. Paul's School, Colet says, "My intent is by this school specially to increase knowledge and worshipping of God and our Lord Christ Jesus and good Christian life and manners in the children," an aim which is reproduced almost verbatim in other foundation statutes. The school at Sevenoaks (1571) was founded "for the maintenance of God's glory and the erudition and bringing up of poor scholars in Sevenoaks in virtuous discipline, godly learning, and good and civil manners." Finally, in 1600, the statutes for the Free Grammar School in Newcastle-upon-Tyne give the following statement as the aim of the school "that youth should be well founded from their tenderest years in the rudiments of true religion and instructed in learning and good manners."

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[1] Stowe, A. Monroe. *English Grammar Schools in the Reign of Queen Elizabeth,* chap. I. (New York, 1908.)

The political and social aims of Germany do not here stand out pronouncedly, but the implication is that a sound training of the individual will redound to social and political welfare. The German aim is recalled in the *Injunctions* of 1547, which required such of the clergy as had more than one hundred pounds to disburse "in benefices and other promotions of the Church," to establish exhibitions at Oxford and Cambridge or in some grammar school for students:

> Which after they have profited in good learning may be partners of their patron's care and charge, as well in preaching, as otherwise, in the execution of their offices, as may (when need shall be) otherwise profit the Commonweal with their council and wisdom.[1]

German *vs.* English schools. There was, however, another distinction between the German and English schools that was more vital. The English schools were founded as philanthropic institutions, as free schools for poor scholars. The foundation of schools was closely connected with the establishment of charities, and the sources of support were often the same. It is true that Leach has denied the claim that the schools were intended for the really poor, and states that they were meant for the younger sons of the nobility, landholders, and of prosperous tradesmen, and that efforts were made to exclude under penalty certain classes from the privileges of higher education. In view of the fact that in the nineteenth century an attempt was made to deny also that the schools were established as free schools, an attempt disproved by Leach, the term "poor" scholars must be accepted on its face value. The schools were attended by all classes of the population, and the very poor, those whose parents could not afford to dispense with their earnings or to pay for their clothing, books, and other extras, did not attend them any more than they do now where secondary education is free. In what sense it was intended that the schools should be free is explicitly stated in the Foundation deeds of the Manchester Grammar School (1525):

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[1] Adamson, *op. cit.*, p. 137.

> That every schoolmaster and usher, for ever, from time to time shall teach freely and indifferently every child and scholar coming to the same school, without any money or other rewards taken therefor, as cockpenny, victor-penny, potation penny, or any other whatsoever it be, except only his stipend and wages hereafter specified.[1]

In fact the phrase "to teach freely, nothing taking therefor," is one that occurs so frequently that any other interpretation, such as freedom from church control or free to all comers irrespective of residence, is out of the question. The probability is that the clientèle in the sixteenth century was similar to that found by Foster Watson at Colchester Grammar School in 1643, where "a large proportion were sons of gentlemen or clergy, together with tradespeople's children, viz. tanners, grocers, tailors, linendrapers, an ironmonger, a goldsmith, a dyer, and a chemist." [2]

The English grammar schools of the sixteenth century were thus founded to give instruction, generally without fee, among others to "male children and youth as well of the poor as of the rich" (St. Saviour's), "for whatsoever poor children destitute of help" (Sevenoaks), and "for the fatherless, widows', and poor men's children" (Abingdon).[3]

Support of schools. The German schools were supported generally out of public funds, derived not infrequently from sequestrated property of the religious institutions. Fees were paid universally, although provision was made for free scholarships and other grants to poor boys of ability. In England the schools were, as was pointed out, generally free of tuition and were supported out of the annuities or income from estates or funds left to the schools; in some cases revenues from some public utilities were assigned for the maintenance of a school, as, for example, the fees for wine-charters at St. Albans or the charge for grinding corn at certain mills in Manchester.

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[1] Mumford, A. A. *The Manchester Grammar School*, p. 477. (London, 1919.) See also Monroe, P. *Cyclopedia of Education*, s.v. "Free Schools."

[2] Watson, F., *op. cit.*, p. 531. (Cambridge University Press, 1908.)

[3] Stowe, *op. cit.*, pp. 125 f.

State or public support of schools in Germany was accompanied by supervision and control by governmental authorities, including both clerical and secular officials. Actual school inspection was delegated to church officials who might or might not associate lay representatives with them. The English schools were essentially private schools administered by boards of governors, sometimes self-perpetuating, and sometimes including representatives of the founder's kin or of institutions specified in the foundation deeds. The Church, however, under governmental sanction exercised the right of licensing teachers both for learning and orthodoxy, and of inquiring into the religious aspects of the school work; the State as such did not participate in the administration or supervision of education beyond the efforts of Henry VIII and Edward VI, already mentioned, and their requirement that Lily's *Grammar* be used in the schools.

The teachers in Germany. It was a consequence, both of the purposes of Reformation education and the public control of education in Germany, that considerable attention was given to the appointment of teachers. As a rule much greater emphasis was placed on the moral and religious than on the intellectual qualifications of teachers. Appointments were made by representatives of the church and secular authorities, and candidates were examined touching their piety more than their learning. Practices varied from place to place on such matters as the submission of testimonials and the presentation of a lesson to prove practical ability. Generally candidates were required to be "scholarly, God-fearing men, zealous and devoted to their work," or "diligent, skillful, sufficiently learned men." Occasionally a university degree was required, and this exempted its holder from all but the religious test. Appointments usually were made for one year, and changes, especially among the ushers, were frequent. Once appointed the teacher was ceremoniously inducted, and was required to take an oath of fidelity to give the orthodox religious and moral training, to adhere to the prescribed curriculum, to discipline the pupils, to attend church regularly, and to obey the school and church ordinances.

The chief source of remuneration came from fees at entrance and for tuition, which the teacher himself collected, supplemented by grants from the public treasury or church funds; in addition the principal was given a home, garden, pasturage, wood and fuel, and presents from pupils on leaving; and, finally, he might find other sources of revenue from private tuition, free meals, and fees for singing (with or without his pupils) at weddings, entertainments, and funerals. Teachers were regarded as public servants, and were exempt from civic burdens. A few ordinances provided for the care of teachers during sickness and old age. In theory the social status of the teacher ranked with that of officials of the church; in some cases this was actually true. In practice this esteem for the teaching profession was not shown, as may be gathered from a complaint of Adam Siber, Rektor of the school at Grimma (one of the Fürstenschulen):

> In the end are the pains and difficulties repaid by a good salary and the conforting signs of grateful hearts? If it were only so!... Must one not then perish of hunger and misery! One must ask assistance of friends and neighbors, knowing that one must cover the old debts with new ones.[1]

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[1] Robbins, C. L. *Teachers in Germany in the Sixteenth Century*, p. 88. (New York, 1912.) The whole volume is a valuable and detailed contribution to the subject of this paragraph. See also Mertz, *op. cit.*, chap. VIII.

The teachers in England. In England, the social and economic status of the teachers was both higher and more secure. They were required to be men of good report, sober, discreet and undefamed, honest and meek, sufficiently learned in grammar, or learned in grammar and the Latin tongue, or able to teach the Latin and Greek tongues learnedly and skillfully; in some cases a degree from Oxford or Cambridge University was required. Appointments were made by the boards of governors, but all candidates had to be examined and "allowed" or licensed by the Bishop of the diocese. The practice of licensing teachers followed from the Crown's Injunctions of 1559:

> That no man shall take upon him to teach but such as shall be allowed by the ordinary and found meet as well for his learning and dexterity in teaching as for sober and honest conversation, and also for right understanding of God's true religion.

In 1581 this Injunction became a law which provided that:

> a schoolmaster or teacher presuming to teach contrary to this Act and being thereof lawfully convicted shall be disabled to be a teacher of youth and shall suffer imprisonment without bail or mainprise for one year.

The observance of this law constituted one of the subjects of inquiry in the Visitations during the rest of the century, and in 1604 the situation was more rigorously defined by a Canon providing that:

> No schoolmaster shall teach either in public school or private house but such as shall be allowed by the Bishop of the Diocese, or Ordinary of the place, under his hand and seal, being found meet as well for learning and dexterity in teaching as for sober and honest conversation and also for right understanding of God's true religion; and also except he shall first subscribe to the first and third Articles aforementioned simply and to the first clauses of the said Article.

The teacher was inducted into his office in England with a ceremony of admission which was definitely prescribed in certain statutes, as in the case of St. Paul's School:

> The Mercers shall assemble together in the Scole-house, with such advice and counselle of well literature and learned men as they can get; they shall chose this Maister, and give unto him his charge, saying unto him on this wyse:
>
> "Sir, we have chosen you to be Maister and Teacher of this Scole, to teache the children of the same not only good literature, but allso good maners, certifieing you that this is no rome of Continuance and Perpetuite, but upon your dewtie in the Scole. And, every yere at *Candlemass*, when the mercers be assembled in the Scole-house, ye shall submit you to our examination, and founde doinge your duetie accordinge, ye shall continue; otherwise reasonable warned, ye shall contente you to departe; and you of your part, not warned of us, but of your mynde, in any season willing to departe, ye shall give us warning Twelve months before, without we can be shortlyer well provided of another. Also, being Maister, ye shall not absente you, but upon license of the Surveyors being for the time being. Also, yf any controversy and stryfe shall be betwixt you and the Surmaister, or the Chapelyne of the Scole, ye shall stand at the direction of the Surveyors being for that yere."
>
> And, yf the chosen Maister will promise this, thenne admyt him and name him to it, and stall him in his seat in the Scole, and shew him his Lodgings.[1]

The ushers were usually selected by the headmaster and appointed by the governors, subject to the same requirements of licensing by the Bishop. The appointments were made during good behavior, and, in contrast with German practice, where the appointments were for a term, there appears to have been more stability in the English profession. This was due to another important distinction, that fixed salaries were paid with the addition of a house or lodgings; salaries might be augmented by taking boarders, by assisting in the Church, by admission fees, and by gifts from pupils or parents. Provision was made for teachers during sickness, and at St. Paul's School pensions were established.[2]

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[1] Stowe, A. M. *English Grammar Schools in the Reign of Queen Elizabeth*, p. 73. (Teachers College, Columbia University, New York, 1908.)

[2] On the English teacher see Stowe, *op. cit.*, chap. III.

The pupils. One of the most important changes in the reorganization of education at this period was the introduction of a certain amount of order and discipline among the pupils, and the gradual elimination of the wandering students and their satellites. Regular courses were prescribed, pupils were classified and promoted, regular attendance was required, certificates of honorable dismissal from a school previously attended were demanded in some places on admission to a new school, and occasionally parents were required to give an undertaking to keep their children in school for a definite period of time. In Germany pupils paid fees, but poor pupils were sometimes exempted from them, or were provided with books and clothing; others might support themselves by singing, like their teachers, at weddings and funerals, or by giving tuition or by escorting wealthier boys to and from school. In England education was generally to have been free from tuition, but not necessarily from other incidentals which would exclude the really poor; pupils had to be nominated or admitted by the master, governors, or some prominent citizen; and a definite entrance requirement was imposed in most places. It was understood that a parent must remove his child from school if he failed to make progress, as in a number of German ordinances (Brunswick 1528, Brieg 1581), and at St. Paul's School:

> If youre Chylde, after resonable season proved, be founde here unapte and unable to lernynge, than ye warned thereof, shal take hym awaye, that he occupye not oure rowme in vayne.
>
> If he be apt to lerne, ye shal be contente that he continue here tyl he have competent literature.[1]

Pupils were usually admitted between the ages of six and nine, depending partly on their capacity and their attainments, which included ability to read and write and knowledge of the Catechism; in a few instances, but rarely, some knowledge of Latin also was expected. The duration of the course varied in different places from six to ten years, whatever the system of classification was.

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[1] Stowe, *op. cit.*, p. 131.

Moral oversight. An important function of education, moral training, was not neglected. In both countries a certain amount of self-government existed. In Germany the pupils were divided into groups of ten (*decuries*), under a captain or decurion, who served sometimes as assistant to the teachers, called the roll, kept the pupils in order in the absence of the teachers, swept the rooms, and supervised the pupils out of school, including violations of the requirement to speak Latin. At Trotzendorf's school at Goldberg the pupils were organized into a Roman republic, with a staff of officers bearing Latin names; in England the prefect system, which had originated in the medieval period, was continued. The organizations of the pupils were supplemented by school laws and regulations which in Germany often were drafted by the local city councils, or by the schoolmaster with the approval of the council, and in England by the governors. Generally the rules were read to the pupils on their admission, and always were displayed in the schoolrooms. The comprehensiveness of these school laws is well indicated in the School Ordinances of Brieg, 1581, which required of pupils that:

> (1) On entrance to school pupils swear to obey the school laws and the teachers, and must not leave the city without informing the rector. (2) They must attend the lessons diligently and repeat them at home. (3) Pupils, especially the nobles, must have private tutors. (4) Pupils must fulfill their religious duties. (5) They must show proper respect to persons of rank. (6) Carrying weapons and dueling are forbidden; so, too, lying and quarreling among fellow-students. (7) There must be no violence in the school. (8) Pupils must be in their homes at 9 o'clock. Those found on the streets after that time will be locked up in the city jail. (9) Pupils must not crowd round the rector. Complaints must be submitted by two or three pupils. (10) Bathing and skating are forbidden. (11) So, too, indecent language and conduct. (12) So, too, intemperance,

drinking, etc. (13) So, too, visiting saloons. (14) In general pupils must not attend weddings. If invitations cannot be declined, pupils must at least behave decently. (15) Fishing and birdcatching are forbidden. (16) So, too, dice and card-playing. (17) So, too, trade and barter. (18) So, too, association with evil companions. (19) So, too, reading of obscene books. (20) Piety and reverence must be shown everywhere.

That the task was looked upon in much the same way in England also is indicated in the statutes. Thus, at Hawkeshead (1588), the students:

> shall use no weapons in the school as sword, dagger, waster, or other lyke to fight, or brawl withal, nor any unlawful gaming in the school. They shall not haunt taverns, alehouses, or playing at any unlawful games as cards, dice, tables, or such like.

At Oundle (1556), the scholars were "to refrain from the detestable vice of swearing, or ribald words," on pain of three stripes "for every oath or ribald word spoken in the school or elsewhere."

Games and punishments. Physical activities and games, although not forming part of the curriculum, were normally indulged in by the boys, and cognizance was taken of them by the school ordinances in Germany and by law in England. Thus the Brieg School Ordinances mention ball games, wrestling, running, dancing, hoops, bowls, etc. to strengthen the spirit and body: "health is the first consideration in play." In England the favorite school sport was cock-fighting, the pupils paying cock-pennies for the maintenance of the cocks. In 1542 an Act was passed, under Henry VIII, which required fathers and guardians of young boys to train them in archery. Richard Mulcaster devotes a considerable part of his *Positions* to a discussion of the importance and value of exercise and bodily training through dancing, wrestling, fencing, top-spinning, walking, running, leaping, swimming, riding, shooting and ball games (handball, football and "armball" not unlike volley-ball).

The strongest deterrent and corrective in the schools of both countries, however, were the severity and variety of the punishments. The Magdeburg School Ordinance, 1553, includes warning, reproof, memorization or copying of lines, wearing of symbols (e.g., *signum ignorantiæ*), the rod, fines, imprisonment, and expulsion. To this list Brinsley had little to add in his *Ludus Literarius, or The Grammar Schoole*, where he also confirms the German regulations that punishments should not be too excessive and should fit the offense and the offenders, and never be inflicted in anger. There is no evidence that these injunctions were carried out in practice, for the severest kinds of punishment were meted out without distinction as much for laziness or incapacity as for moral offenses. Brinsley wisely remarks:

> Now this extreme whipping, all men know what a dislike it breedeth in the children, both of the school, and of all learning, as that they will think themselves very happy if the parents will set them to any servile or toiling business, so that they may keep from school: And also it works in them a secret hatred of their masters.[1]

Educational aims. The chief impulse in the reorganization of the studies of the secondary schools in the sixteenth century was definitely practical. The humanities, which before long came to be synonymous with Latin, were to be taught not for cultural ends but as tools for direct access to the sources by means of which religious doctrine was to be purified. The return to the classics was important to the traditional as much as to the reformed Church. In less than a century, however, the means to the greater end became the end itself, and the use to which it was to have been put originally became subsidiary and then an extra. The supreme end of education came to be ability to express one's self clearly and forcibly in Latin, and particularly in the style of Cicero. This end furnished the basis for the organization of studies.

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[1] Brinsley, J. *Ludus Literarius or the Grammar Schoole*, ed. by E. T. Campagnac, p. 278. (London, 1917.) Consult also Mulcaster, R. *Positions*, ed. by R. Quick, pp. 274 ff. (London, 1888.) See in general on the pupils of the sixteenth century Stowe, *op. cit.*, chap. v, and Mertz, *op. cit.*, chap. IX.

Curriculum and methods. The scope of the curriculum of the German schools is illustrated by the program used by Sturm, at Strasbourg, for more than forty years.

> *Tenth Class:* The alphabet, reading, writing, Latin declensions and conjugations; catechism in Latin or German. *Ninth Class:* Declensions and conjugations; Latin vocabulary of terms of everyday life; irregular Latin forms. *Eighth Class:* Continuation of above; composition of Latin phrases; some letters of Cicero; exercises in style. *Seventh Class:* Syntax in connection with Cicero's *Letters;* composition; translation of catechism, etc., into Latin. *Sixth Class:* Translation of Cicero, Latin poets, catechism, and *Letters* of Jerome with grammatical exercises; Greek begun. *Fifth Class:* Latin versification, mythology; Cicero; Virgil's Eclogues; Greek; exercise in style; double translations; Paul's *Epistles. Fourth Class:* Same as fifth class, with wide reading of Latin authors. *Third Class:* Rhetoric; *Orations* of Cicero and of Demosthenes; double translations of orations; composition of letters; presentation of comedies of Plautus and Terence in this and higher classes. *Second Class:* Greek orators and poets; dialectic and rhetoric in connection with Cicero and Demosthenes; presentation of selected dramas of Aristophanes, Euripides, and Sophocles, in addition to Plautus and Terence. *First Class:* Dialectic and rhetoric; Virgil, Horace, Homer, Thucydides, Sallust, *Epistles of St. Paul.*[1]

With this may be compared Colet's proposed program for St. Paul's School as formulated in 1518:

> As towchyng in this scole what shalby taught of the maisters and lernyd of the scolers, it passith my wit to devyse and determyn in particuler but in generall to speke and sum what to saye my mynde, I wolde they were taught all way in good litterature both laten and greke, and goode auctours suych as haue the veray Romayne eliquence joyned withe wisdome specially Cristyn auctours that wrote theyre wysdome with clene and chast laten other in verse or in prose, for my entent is by thys scole specially to incresse knowledge

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[1] A summary of the curriculum based on the *Classicæ Epistolæ* of Sturm in Monroe, P. *Textbook in the History of Education*, pp. 391 f. (New York, The Macmillan Co., 1906.)

> and worshipping of god and oure lorde Crist Jesu and good Cristen lyff and maners in the Children And for that entent I will the Chyldren lerne ffirst aboue all the Cathechyzon in Englysh and after the accidence that I made or sum other yf eny be better to the purpose to induce chyldren more spedely to laten spech And thanne Institutum Christiani homines which that lernyd Erasmus made at my request and the boke called Copia of the same Erasmus And thenne other auctours Christian as lactancius prudentius and proba and sedulius and Juuencus and Baptista Mantuanus and suche other as shalby tought convenyent and moste to purpose vnto the true laten spech all barbary all corrupcion all laten adulterate which ignorant blynde folis brought into this worlde and with the same hath distayned and poysenyd the olde laten spech and the varay Romayne tong which in the tyme of Tully and Salust and Virgill and Terence was vsid, whiche also seint Jerome and seint ambrose and seint Austin and many hooly doctors lernyd in theyr tymes. I say that ffylthynesse and all such abusyon which the later blynde worlde brought in which more ratheyr may be callid blotterature thenne litterature I vtterly abbanysh and Exclude oute of this scole and charge the Maisters that they teche all way that is the best and instruct the chyldren in greke and Redyng laten in Redyng vnto them suych auctours that hathe with wisdome joyned the pure chaste eloquence.[1]

Emphasis on Grammar. The chief emphasis was placed on the study of grammar, not as in the medieval schools as a training in logic, but rather as a foundation for the acquisition of a knowledge of Latin. It was defined by Melanchthon as "the sure introduction to speaking and writing," and described in ordinances as "the mother and nurse of all other arts," and as "the source of other arts and sciences"; "without grammar all other studies are futile." In Germany the most popular grammar of a large number was Melanchthon's *Grammatica Latina* (1525), although Donat was for a long time retained as an introductory book for beginners. English schoolboys of the sixteenth century, and for several centuries thereafter, were brought up on Lily's *Latin Grammar*, which was a compilation begun in 1515 and reached its definitive form about 1574 as *A Shorte Introduction of Grammar, generally to be used; compyled and set forth for the bringing up of all those that intende to attaine the knowledge of the Latin tongue.* In the meantime Lily's *Grammar*, as *An Introduction to the Eight Partes of Speche*, was required to be used in the schools of England by royal proclamation:

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[1] Monroe, *op. cit.*, pp. 393 f.

> Henry VIII by the grace of God, King of England, France and Ireland, defender of the Faith, and of the Church of England, and also of Ireland, on earth the supreme head, to all schoolmasters and teachers of grammar within this realm, greeting. Among the manifold business and most weighty affairs appertaining to our regal authority and office, we forget not the tender babes and youth of our realm whose good education and godly bringing up is a great furniture to the same and cause of much goodness. And to the interest that hereafter they may the more readily and easily attain the rudiments of the Latin tongue, without the great hindrance which heretofore hath been, through the diversity of grammars and teaching, we will and command and straightly charge all you schoolmasters and teachers of grammar within this our realm, and other our dominions, as ye intend to avoid our displeasure, and have our favor, to teach and learn your scholars this English Introduction here ensuing, and the Latin Grammar annexed to the same, and none other, which we have caused for your ease and your scholars' speedy preferment briefly and plainly to be compiled and set forth. Fail not to apply your scholars in learning and godly education.[1]

This, one of the few examples of government intervention in education, was repeated by Henry VIII's successors, and was carried over into the seventeenth century in the Canons of the Church of England (1604). Its use in schools was one of the subjects of inquiry at visitations.

The issue of grammars, which included orthography, accidence, syntax, and prosody, tended to set up its study as a separate subject, distinct from the reading of authors and from literature with which it was originally intended to be associated. Worse perhaps was the effect on method; grammar began to be learned and acquired by repetition and memorization, for which aids were soon found in versified rules and other aids, such as the *Propria quæ maribus*, and *As in Præsenti*, and *Qui mihi Discipulus*, the introductory words of Lily's *Carmen de Moribus.*[1]

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[1] Quoted in Adamson, *op. cit.*, pp. 124 f. For a history of the Authorized Latin Grammar see Watson, F., *op. cit.*, chap. xv.

The making of vocabularies. The study of grammar (*præcepta*) was preparatory to the acquisition of a vocabulary by building up words, phrases, and sentences, a practice which was not new but one which acquired a new importance in the emphasis that was now placed on purity of Latin usage. Some of the German ordinances and some of the English school statutes actually prescribed the number of words to be acquired each day. Since vocabulary was acquired in order to facilitate Latin-speaking as rapidly as possible, it was built up on words in everyday use connected with the body, buildings, houses, various occupations, ships, and so on. Pupils were expected to keep a list of the words dictated by the teacher, and to learn them by heart each day; since they were examined in these cumulatively, a considerable vocabulary was soon acquired. The *diaria* or *ephemerides* of the pupils were in time supplemented by *Nomenclatores*, of which there was a large number in Germany, while in England the one most widely used was Stanbridge's *Vocabula*, issued about 1500. Vocabularies gradually grew from isolated words into phrases and sentences, at first dictated by the teacher, and later made up by the pupils out of their reading; the making of phrase books and commonplace books was one of the most valuable exercises until the appearance of printed books of apophthegms, adages, epithets, compends, and epitomes, leading up to the colloquies. The most popular work of this kind was the *De duplici Copia Verborum ac Rerum Commentarii duo*, of Erasmus, both a guide to the making and a collection of phrases and sentences; as in the case of other textbooks this was one of the best of a type.

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[1] A translation will be found in Adamson, *op. cit.*, pp. 130 ff.

The making of vocabularies, phrases, and sentences had an essentially practical purpose, and was definitely directed to everyday use. The speaking of Latin was aimed at from the first, and not only in the classroom but in and about the school. In Germany Latin-speaking was required in a large number of ordinances, and was often accompanied by injunctions against the use of the vernacular; and in England school statutes required that pupils "shall use to speak Latin as well without the school as within" — a requirement often accompanied by the prohibition of English after a certain stage had been reached in the course. Not only were severe penalties assigned for breaches of such regulations, ranging from the *signum Germanicæ locutionis* to corporal punishment, but monitors and prefects and "clandestine observators," known also as *lupi* (wolves) or *custodes*, were required to report on those who violated the rules.[1]

Colloquia. The building up of a vocabulary, Latin speaking, and the study of grammar were but stages preparatory to and continuous with the reading of authors. Here, too, a preliminary stage must be recognized. Partly because of the difficulty of finding classical authors suitable from the point of view both of difficulty and of content, a large number of introductory readers appeared built up on the conversational or dialogue plan, and providing a content more directly applicable to the needs of young pupils. These *Colloquia* served at least two purposes besides that of teaching Latin; they often served as texts for moral instruction and as introductions to Scriptural history and religion, or dealt with school life, customs, events, and actions of general interest to the pupils.

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[1] See Mertz, *op. cit.*, pp. 280 ff.; Watson, *op. cit.*, chap. XIX; and Stowe, *op. cit.*, p. 142.

The practice of using colloquies for educational purposes was not new; Alcuin had already used the method in the eighth century, and one of the earliest colloquies is that of Ælfric Bata, written in the tenth century.[1] The *Colloquia* of Erasmus (1516), widely used in both Catholic and Protestant schools, deals with a great variety of subjects including manners and morals, games and plays, religion and piety, and a great variety of topics of general information. The *Pædologia* of Mosellanus (1578), prescribed by a number of ordinances in Germany, presents different aspects of the life of students at Leipzig University. In 1539 appeared the *Exercitatio Linguæ Latinæ* of J. L. Vives,[2] used in a number of English schools, which dealt in conversational form with the daily happenings in the life of a schoolboy. In the second half of the sixteenth century the colloquies of Sebastian Castellion and Maturinus Corderius became more popular in Protestant schools. The *Dialogi Sacri* of Castellion (1543) were written with the specific purpose of aiding religious education with the subject-matter taken from Scriptural history; the *Colloquia Scholastica* of Corderius (1564) is again devoted to the life and activities of the schoolboy, "collected to practice boys in Latin speech." A popular introductory book, used alike for moral training and for Latin instruction, was Cato's *Disticha de Moribus*, a need which was also met by Erasmus' *De Civilitate Puerilium* (1526), and the *Praecepta Morum ac Vitæ* of Camerarius (1541).

Without entering into any further details on the subject of the method implied by the colloquies, the point that deserves emphasis is that through a great part of the sixteenth century the aim of making Latin a living practical subject was not neglected; at the same time the flow of texts of this type tended to militate against the making of collections and commonplace books by pupils and teachers as class exercises, and to stress more and more the evil of memorization.

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[1] See above, p. 54.

[2] Translated, under the title *Tudor Schoolboy Life*, by Foster Watson. (London, 1907.)

Reading the classics. It is thus far clear that the introductory work in the teaching of Latin was slow and gradual. This deliberateness was due in part to a desire to lay a sound foundation for the reading of the classics, but it is not unlikely that the difficulty of selecting material of suitable moral content also entered into the plan. This hesitancy is clearly shown in Colet's statement of his difficulty, already quoted: "As towching in this schole what shalby taught... it passith my wit to devyse and determyn in particuler... (That which) ratheyr may be callid blotterature thenne litterature I utterly abbanysh and exclude oute of this scole." Hence he would have only good literature, both Latin and Greek, and "good auctours suych as haue the veray Romayne eliquence joyned withe wisdome specially Cristyn auctours that wrote theyre wisdome with clene and chast laten" (that is, Lactantius, Prudentius, Proba, Sedulius, Juvencus, and Baptista Mantuanus). The same difficulty confronted Luther and Melanchthon, and the leaders in Catholic schools.

The more usual Latin authors read in schools were: Æsop, Terence, Vergil, Ovid, Sallust, Livy, Cæsar, and Cicero. Plautus and Horace sometimes were included, as well as medieval and later Christian poets. The chief prominence was given, however, to Terence, Vergil, and Cicero. The aim in studying authors was to secure intelligible reading and appreciation of content, but in general this was subsidiary to another purpose which is best stated in the statutes of Westminster School (1560), and applicable equally to German and English schools.

> From these lessons the boys shall gather the flowers, phrases, or idioms, also antitheses, epithets, synonyms, proverbs, similes, comparisons, stories, descriptions of seasons, places, persons, fables, sayings, figures of speech, apophthegms.

In other words, the classical authors were intended to furnish not merely vocabularies but models for style. Little attention was given to content; the scientific information and references contained in the classical writings merely supplied words for things, while even ancient history and geography were studied only incidentally. As the early instruction and reading gave facility in the use of Latin as a spoken language, so the later reading of the classical authors was intended as a foundation for use in writing and speech of a more formal character. The writing of themes or compositions on subjects arising out of the texts, letter-writing, disputations, and public speeches constituted the goal to be attained in Latin teaching. Verse writing, though prescribed in the English school statutes, did not hold the same position of importance at this time as prose composition.

The goal of Latin instruction. Command of Latin for practical use in speaking and writing thus furnished the most important goal of the secondary schools of the sixteenth century. How textbooks appeared to meet this end has been described, but side by side with the textbooks and exercises were devised methods for stimulating and training the pupils. The penalties for speaking anything but Latin have been mentioned. On the positive side the whole routine of the school was directed to inculcate a spirit of emulation; groups or *decuries* were matched against groups; place-taking was a common device; "capping" (Latin, *capere*) was another method for stimulating the pupils to acquire a stock of apt quotations; and, finally, the disputation method, although often merely a competition in knowledge of grammar, contributed to the same end as an exercise in Latin speaking not only in school but before a public audience as well. The religious controversies of the time gave a practical sanction in both Catholic and Protestant schools to this practice.

Latin was thus treated as a living language, and to emphasize this one other device was extensively employed, that is, dramatization and performance of plays. These were prescribed in the German ordinances and in the English statutes, and Sturm required them weekly in his school at Strasbourg. According to Comenius (*Schola Ludus*):

> Many a godless, corrupt erring man, by the mere sight of such a play... is moved and influenced to lead a better and godlier life; high potentates look on these plays with special interest and delight, go to great expense in erecting stages, provide the best and most beautiful apparatus, yea verily they hasten from most distant lands ... in order to see these performances.

The Breslau School Ordinances (1570) give a succinct summary of the value of plays for school work. They are to be performed

> not only because the boys learn good pronunciation and gestures by this means, and good manners and morals, but also because, as we, who have taught long years in schools, know by experience, those boys whom neither words nor rods could induce to study have been so roused and excited by the lively action of the characters in plays, that they have acquired quite a liking for the study.

Latin plays. The performance of plays fostered Latin-speaking, trained the memory, voice, and gestures, imparted grace and assurance, and served to interest pupils, parents, and the public. The themes were moral, religious, and secular; not infrequently the plays of Terence and Plautus were performed. In England the scholars of a number of schools performed plays at court, and some of the plays, written by schoolmasters, have taken their place in the historical development of the drama. Indeed, Ben Jonson (*Staple of News*, Act III, Scene 2) criticizes the practice of the schools because

> they make all their scholars playboys. Is't not a fine sight to see all our children made interluders? Do we pay our money for this? We send them to learn their grammar and their Terence and they learn their play books!

The practice, however, met with general approval, and Bacon, referring to the use of plays in the Jesuit schools, praised it for "if it is made a part of discipline, it is of excellent use." Puritan influences affected the survival of school plays in England, but the tradition of performing a Latin play survived at the Westminster School and was restored in many other schools. In Germany the practice died out with the decline of interest in poetry and eloquence and as a result also of the pietistic movement.[1]

The Latin oration. The oration belonged to the same series of exercises in the practical use of Latin. In addition to the collections of phrases, turns of speech, numerous appropriate tags that might serve their use in a speech, and in addition to constant drill in models of pure Latinity, especially Cicero, rhetoric became a subject of study for the older pupils. The works of Cicero and Quintilian, as well as special textbooks on the art of oratory, furnished the sources of information on the subject. The Latin orations shared with the Latin theme the first place in the esteem of all interested in secondary education. Adequate opportunities for full-dress orations were offered on the occasion of church and school festivals and ceremonies, valedictions, public examinations, distinguished visitors, and so on. Hence Brinsley recommends the practice of speech-making

> because schooles of speciall note, and where there are ancient scholars, sometimes it may be expected amongst them, that some one of them should make an oration to entertain a Benefactor or other person of note; and it may be, to doe it *ex tempore*, as their comming is of a sodaine; therefore certaine special heads of an Oration to that purpose might be ever in readinesse. As the commendations of a person for his descent, learning, love, and countenance of good learning and vertue, beneficence, courtesie, favour towards that

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[1] See McConaughy, J. L. *The School Drama* (New York, 1913); *Cambridge History of English Literature*, v, pt. II, pp. 113 f.; Mertz, *op. cit.*, pp. 347 ff.; and Paulsen, F. *Geschichte des gelehrten Unterrichts*, I, pp. 363 ff.

> place, and the like. Also for excusing themselves by their tender yeeres, want of experience and of practice in that kinde, bashfulnesse, timorousnesse; and yet their desire to answer the parties love and expectation, with presuming upon their patience, and such others. To be acquainted also with variety of choise phrases to the same purposes, to have them ever in fresh memory.[1]

Eloquence leads to formalism. It was this aspect of education for eloquence that more than any other was destined to result in formalism. Literatures that had their original justification as school subjects because of their content became in time quarries from which were to be dug out materials for themes and orations. Style, form, and matter came to be more important than content. Gradually the model for such imitation came to be Cicero, "to speak on all things as Cicero spoke." Erasmus might call those devoted to the imitation of Cicero "apes," and might point out very pertinently:

> How many thousands of things there are about which we frequently speak, of which Marcus Tullius did not even dream? But if he were living, he would have to talk about these same things with us.[2]

But Erasmus and the many distinguished scholars, ranged on his side in favor of a wide eclecticism, were unable to stem the narrower point of view represented by Etienne Dolet and in school practice by Sturm. Formalism, represented in particular by Ciceronianism, prevailed and persisted as long as imitation of Latin style continued to be the end of classical teaching.[3] This continued for almost two centuries to represent the chief emphasis in secondary education.

The sixteenth-century ideal had its best exponent in Sturm. In the *De Exercitationibus Rhetoricis* (1575), he says:

> The Greek or Roman children had these two advantages over our

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[1] Brinsley, J. *Ludus Literarius*, etc., ed. Campagnac, E. T., p. 189. (London, 1917.)

[2] See Adamson, J. W., *op. cit.*, p. 127.

[3] See Monroe, P. *Cyclopedia of Education*, s.v. "Ciceronianism."

own. First, they acquired the language in conversation with their mothers, playmates, and attendants, and could also talk Latin with their teachers. Second, they could each year frequently see comedies and tragedies acted, and every day hear orators discuss matters of various kinds. Could we recall those conditions in our schools, why should we not then achieve by industry, effort, and application something that no Roman and Greek children acquired by no other means than habit, namely that our children should speak correct and elegant Latin? [1]

The study of Greek. No other subject could contest the place of Latin. The schools were essentially Latin schools, and, in the smaller German schools, little else was taught in addition but Greek. One of the earliest of the schools, that of Saxony, 1528, definitely excluded Greek and Hebrew. In general, however, the inclusion of Greek was expected in an ordinary course in the larger German schools, and commonly in all English schools. At first the inclusion of Greek was advocated primarily as a key to the *New Testament*, and to theology and philosophy; later its study was advocated as throwing light on much in Latin literature. No doubt much of the hesitancy with which Greek was introduced in the first half of the sixteenth century was due to the absence of suitable introductory texts, of graded reading, and of teachers. Thus Colet, in his statutes for St. Paul's School, 1518, provided that the high master must be "learned in good and clean Latin literature," and "also in Greek, *if such may be gotten*," a phrase repeated in the statutes of the Merchant Taylors' School, in 1561. In 1552, the statutes of the school at East Retford provide for the teaching of Greek grammar "if the master were expert in the same," and Greek authors so far as the master's learning and convenient time will serve thereunto. At Eton there is no clear evidence that Greek was taught until 1560, and even then it is left to the discretion of the teacher. The requirements became more frequent after this date. This is all the more surprising because Greek had been introduced at Oxford early in the century, and at Cambridge had shown great promise under the influence of Erasmus. The Regius Professorship in Greek was established at Cambridge in 1540.

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[1] See also Barnard, H. *American Journal of Education*, IV, p. 413; "The Life and Educational System of John Sturm," translated from Karl von Raumer.

After some introductory work in Greek grammar, textbooks in which were at first limited, the pupils proceeded to Greek translations of the *Catechism* and then to the *New Testament.* The authors read seem to have been more widely selected in the German schools than in the English. In the former there are mentioned Æsop, Lucian, Homer, Hesiod, Aristophanes, Sophocles, Æschylus, Euripides, Thucydides, Isocrates, and Demosthenes. Although the course in Greek was not as intensive as that in Latin, the same methods were employed; that is, the pupils were expected to make up their vocabularies and phrase books, to translate at least from Latin into Greek, and from Greek into Latin or the vernacular, and to acquire material for the study of style and form. In England, at any rate, the study of Greek did not gain momentum until the seventeenth century, when many textbooks and other aids appeared.[1]

Other subjects. The study of Latin and Greek constituted the whole course of the majority of schools in the sixteenth century. Although there was a plentiful supply of books in Hebrew, the subject was rarely prescribed in the German ordinances, and then only for the older boys. In England very few school statutes of the sixteenth century included Hebrew in the curriculum. Its introduction was justified because of its importance for the study of religion and for the preparation of theologians.

Other subjects, such as history, geography, mythology, antiquities, and sciences, were taught incidentally as they came up in the reading of the classical authors. Historical subjects frequently were used for themes and declamations. Melanchthon may have emphasized the need of observing nature, Erasmus may have criticized excessive verbalism, and Sturm may have placed *cognitio rerum* side by side with eloquence in the equipment of the educated man, but the lack of materials and the demands made on the pupils by the classical studies prevented any attention being given to the sciences. The Augsburg school ordinance (1558) required lectures on nature and the natural history of Pliny, and the Brandenburg ordinance (1564) prescribed a lesson a week to the highest class on physics and other *Realien*, while the Breslau ordinance (1570) suggested that materials from physics be used for disputations and declamations. Mathematics is mentioned more frequently than science, but little more is expected than the teaching of some arithmetic and a little astronomy and geometry in the highest classes.[1] In England even this slight reference to the *Realien* is absent from the statutes.

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[1] See Watson, F., *op. cit.*, chaps. xxx and xxxi.

The teaching of religion. The dominating position assumed by the Church, both in the English and German schools, is nowhere better illustrated than in the teaching of religion. The schools were, of course, established for the promotion of piety, and were directly associated with the Church. The subjects that were justified primarily as the instruments for the cultivation of piety became ends in themselves, and religious instruction as such became virtually a separate subject to which a few lessons a week were devoted while the rest was left to the religious exercises in school and Church. Even the teaching of the elements of religion — the Creed, the *Paternoster* and the Catechism — came to be exercises in Latin grammar, construction, and vocabulary. The actual content of religious instruction was small; in addition to the Creed, *Paternoster* and Catechism, the Psalms, the Proverbs, and the Gospels constituted the whole program, with an emphasis usually on language rather than content, which was but rarely prescribed. In German schools dogmatic theology sometimes was taught in the highest classes, but more generally was left to the universities. The practice in England was similar; the elements were taught through the King's *Primer*, which was prescribed by Injunctions of 1547, and later through Dean Nowell's *Catechism* (in English, Latin, and Greek), which appeared in 1570 and was also prescribed.

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[1] See Mertz, *op. cit.*, pp. 323 ff.

More stress was placed on devotional exercises in most schools daily, and in all cases on Sundays and holy days; teachers, both in England and Germany, being required to accompany their scholars to church. The younger pupils were questioned on the sermon on the following day, while the older pupils were often required to reproduce it, a practice which is said to have led to the cultivation of shorthand. Undoubtedly religious instruction was an important motive in the education of the period, but the point that must be emphasized is that its original importance tended, with the development of the century, to be overshadowed by the emphasis placed on language instruction for its own sake. At the same time it is not to be forgotten that much of the content in the introductory textbooks (the phrasebooks and *colloquia*) was religious in character.[1]

The Revival in France

Later development in France. Renaissance and humanist influences in education made themselves felt somewhat later in France than in either Germany or Engand, and this in spite of the close military and political connections between France and Italy. Classical works found their way into French libraries before the close of the fifteenth century, but the University of Paris showed little interest in the new developments and, indeed, was later to prove the chief obstacle to their introduction into French education.

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[1] See Mertz, *op. cit.*, pp. 232 ff.; Watson, F., *op. cit.*, chaps. II, III, IV; Stowe, *op. cit.*, pp. 147 ff.

Charles VIII and Louis XII, and the members of their courts, could not fail but be impressed by the magnificence of the Italian City-States and the flourishing condition of letters. Not only did they collect pictures, furniture, and objects of art, but royalty and the nobility became patrons of the Italian humanists. Thus the Venetian, Aleandro, became rector of the University of Paris in 1513, and was one of the first to teach Greek in France. Other Italian scholars were invited to France, while individual Frenchmen maintained a close connection with literary circles and scholars, both in Italy and Germany. First among them was Lefèvre d'Etaples, who visited Italy and Germany and became acquainted with the schools of the Brethren of the Common Life. Lefèvre, however, although an important contributor in his day to the knowledge of Aristotle and a writer in the fields of science, mathematics, and cosmography, was himself but slightly interested in the classical languages and literature, and even condemned the study of Terence, Lucan, and Ovid.

The Collège de France. It was not until 1530 that an attempt to promote humanistic learning was made by the establishment, through the patronage of Francis I, of the Collège Royal, later the Collège de France. The King had shown an interest in the establishment of such an institution as early as 1517, and this interest was kept alive by Guillaume Budé (Budæus), who became the King's librarian in 1522. Inertia, lack of public interest, want of funds, and the opposition of the University led to constant delays until 1530, when chairs in Greek and Hebrew were created, followed in 1534 with a chair in Latin. The movement was in fact viewed with suspicion as lay and aristocratic, while the University, as the stronghold of scholasticisim and ecclesiasticism, felt its prerogatives menaced. The faculty of theology of the University petitioned Parliament, in 1534, to prohibit professors from lecturing in the Collège Royal until they had received authorization from the

University. In 1546 the King exempted the professors from the control of the University, and increased the number of chairs to three in Hebrew, three in Greek, two in Mathematics, and one each in Latin, medicine, and philosophy.

Other colleges. The spread of printed books, which made possible the publications of editions of the classics and of commentaries by Budé, and of the great *Thesaurus linguae Latinae* of Robert Estienne, and of many other works, helped to spread an interest in the study of the classics. Thus about 1537, immediately after graduating and perhaps as a protest against the type of education to which he himself had been exposed, Peter Ramus established the Collège de l'Ave Maria, where with Omer Talon, as professor of rhetoric, and Barthélemy Alexandre as professor of Greek, he introduced a classical curriculum, the first in any college of the University of Paris. The same work was continued by Ramus when he took charge of the Collège de Presles, in 1545. In 1551 Ramus became professor of eloquence and philosophy in the Collège Royal, and wielded an extensive influence through his commentaries on Cicero, Vergil, and Cæsar, and his works on Greek grammar, rhetoric, and dialectic.

Into the controversies between Ramus and the University it is not necessary to enter here except to cite it as the outstanding example in the sixteenth century of the obscurantism of the University, and the widespread belief, for which there was undoubtedly some justification, that the leading humanists of France were inclined to be more than sympathetic to religious reforms. This position is illustrated by the decree passed by Parliament in 1568, at the request of the University:

> All who teach or give lessons, whether in public or in private, including the King's professors (i.e., in the Collège Royal), principals, regents, assistants, etc., must be of the apostolic and Roman Catholic faith, and must assist the rector in Christian and Catholic arts, and where any are found unwilling now or in future to ob-

serve and respect this regulation, the said Court allows the rector of the said University to replace them with others.

The immediate effect of this was to retard intellectual activity and production, and to lead to a decline of schools and the University, to which the political and religious situation soon following also contributed.

There was not developed in France during the sixteenth century a system of secondary education similar to those of Germany and England. Essentially an aristocratic movement, promoted by enlightened patronage, humanism was cultivated here and there in individual institutions. Beside those already mentioned must be included the Collège de Guyenne, modernized in 1534 by André Gouvea, who was invited by the civic corporation from Paris to take charge of the school. Gouvea took with him some of his colleagues from Paris, including, for a short time, Mathurin Cordier (Corderius of the *Colloquies*). The school reached the height of its success under Elie Vinet (1556–1570), who described the work of the school in his *Disciplina et ratio docendi.* That the school, although it included Greek, a little mathematics, and French, was devoted to the cultivation of Latin speech (*Latino sermoni cognoscendo haec schola imprimis destinata est*, according to Vinet), has been emphasized by one of its most distinguished alumni, Montaigne. As a student at the Collège de Guyenne, about 1539, he states that the program was as follows: Classes VII, VI, and V, Cicero's *Epistles*, Latin grammar of Despauterius, and Latin composition; Class III Latin authors in prose and verse; Class II Latin and history; Class I (Rhetoric) Latin oratory; hardly any mathematics was taught, Greek was left mainly to the University, and French was supplementary to Latin which was employed for private and public declamations and the performance of plays, classical or contemporary.

Henri de Mesme, himself a great teacher of the sixteenth century, thus describes a day of his school life:

> We rose at 4 in the morning and after prayers went at 5 to our studies. We attended classes till 10 without a break; then we went to dinner after discussing quickly for half an hour what we had taken down in our notes. After dinner we read for relaxation Sophocles or Aristophanes or Euripides and sometimes Demosthenes, Cicero or Vergil... At 1 o'clock back to our studies, at 5 to our rooms to repeat and look up passages assigned in our books, until 6. Then we supped and read Greek and Latin.[1]

The first Jesuit college. So far as the development of an organized system of education is concerned, it was not until 1563 that a foundation was laid for it by the opening of the first Jesuit college in Paris, the Collège de Clermont. Ten years later the Order opened the Collège de la Madeleine in Bordeaux, in direct competition with the Collège de Guyenne. Before they could well establish themselves they became embroiled in politics, and were expelled from France by Henry IV about 1595. In 1610, the King permitted the Jesuits to remain and open schools in certain definitely mentioned localities. In 1618 they were permitted by a decree of the Council of the State, passed over the opposition of the University, to reopen the Collège de Clermont. From that time on the Jesuits acquired, for a century and a half, what virtually amounted to a monopoly of secondary education.

The reorganization of 1589. When Henry IV came to the throne, in 1589, there were in Paris somewhat over fifty colleges, but with the University they were in a complete state of disorganization. The King immediately appointed a commission which presented a draft of new statutes for the University, in 1598; although approved by Parliament in that year, they were not published until 1600. In the field of general education one of the main purposes of the statutes was to restore the study and use of Latin to its position of supremacy. "None of the students may use the vernacular in the colleges, but Latin speech must be cultivated and become the common language"; *exploratores* were to be appointed in each class to report on infractions of this regulation (No. XV). The general course of study for the colleges, that is, the secondary schools, was defined as follows (No. XXIII):

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[1] Lavisse, E. *Histoire de France*, v, chap. II, p. 269. (Paris, 1903.)

> Since a knowledge of languages must be obtained from good and ancient authors, let the teachers appointed by the regents see that they have a selection of the best books so that they may read to the younger boys, together with the rules of grammar, something from the stories of Terence, Cicero's Familiar Letters, Vergil's Bucolics, and others of the purer authors of this kind. To the more advanced pupils they should lecture on parts from Sallust, Cæsar's Commentaries, Cicero's Offices and easier orations, as well as on Vergil and Ovid. They should repeat the rules of grammar of both languages, Latin and Greek. With the older boys in the second or first class there should be read more difficult works of Cicero such as Orations, *Tusculan Disputations*, and other philosophical works, *De Oratore*, *Brutus*, *Partitiones*, *Oratoriæ*, *Topics*, and Quintilian, not neglecting meanwhile the poets, Vergil, Horace, Catullus, Tibullus, Propertius, Persius, and Juvenal, and sometimes Plautus. And in order that they should not be ignorant of the Greek tongue, after the rules of grammar let them learn something of Homer's *Iliad*, or *Odyssey*, Hesiod's *Works and Days*, Theocritus' *Idylls;* then some dialogues of Plato, some orations of Demosthenes and Isocrates; then also Pindar's *Hymns* and other similar works at the discretion of the teachers.[1]

There is no indication of the duration of this course, but it probably lasted five years, boys being admitted at the age of nine. Six hours of instruction were to be given a day, of which one was to be devoted to the study of grammar, two to writing of themes, verses, speeches and to disputation, and the rest to "hearing, learning, memorizing, imitating, and, lastly, commenting on poets, historians, and orators." Once a week, on Saturday, every pupil was required to hand in to the principal not less than three written themes in Latin or Greek, signed by the teacher. Emphasis was to be placed on memorization and repetition "since the memory is the storehouse of knowledge." Finally (No. XXXVI):

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[1] Jourdain, C. *Histoire de l'Université de Paris*, part II, pp. 3 ff. (Paris, 1866.)

> Pupils may not advance to the study of philosophy unless well trained in Greek and Latin, and grounded in the rules of grammar and rhetoric.

The course in philosophy, lasting for two years, was to be devoted to the study of the logic, physics, metaphysics, and ethics of Aristotle, while some attention was to be given to Euclid. Provision was made for general inspection of the colleges by the rector of the University, assisted by four censors, in the first month of his incumbency. In 1626 these statutes were further amplified with more insistent emphasis on Latin-speaking, disputations, declamations, written themes in prose and verse, and especially on repetition and memorization.

The new organization of secondary education represents the culmination of a plan for a clear demarcation between secondary and university education, as recommended by Ramus in his *Avertissement sur la Réformation de l'Université de Paris au Roy*, published anonymously in 1562. Here he attacked the sterility of the common practice of spending most of the school time on learning and repeating rules and precepts, without any attention to content by extensive reading of classical authors.[1] To some extent those who drafted the Statutes may have been indebted to the educational program of the Jesuits.

The Jesuit schools. When it began to penetrate into France, the Society of Jesus, organized in 1534 by Ignatius Loyola, and sanctioned as an Order of the Church by Pope Paul III in 1540, had already embarked successfully on one of the functions undertaken by it to promote *Omnia ad Majorem Dei Gloriam,* that is, the higher education of youth. Their colleges had not yet, however, received the uniform organization and plan of studies that were to constitute at once the strength and the limitation of the work of the Order. The plans of studies already adopted by the colleges individually were based on a foundation of humanistic studies. The final *Ratio Studiorum* was elaborated under the General of the Order, Aquaviva, and was the work of fifteen years of deliberation, study, and experimentation. A plan, prepared after a year of discussion, was distributed to the provinces, into which the Order was organized; reports on it were returned, and on the basis of these a second plan was prepared and distributed in 1591; the reports submitted on this plan resulted finally, in 1599, in the *Ratio atque Institutio Studiorum Societatis Jesu.*

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[1] See in general Farrington, F. E. *French Secondary Schools*, chap. III (New York, 1910); Graves, F. P. *Peter Ramus* (New York, 1912); Gréard, O. *Education et Instruction, Enseignement Secondaire*, II (Paris, 1889); Jourdain, C. *Histoire de l'Université de Paris* (Paris, 1866); Lantoine, H. *Histoire de l'Enseignement Secondaire en France au XVII^e^ et au Début du XVIII^e^ Siècle* (Paris, 1874); Lavisse, E. *Histoire de France*, V, chaps. I and II (Paris, 1903).

The final plan represents the matured judgment of the teaching experience of the Order over nearly half a century, and careful discussions conducted over a period of fifteen years. It represented something more; it represented the perfection in organization of the practices and ideals of humanistic education of the fifteenth and sixteenth centuries. To say this is neither to depreciate the educational work of the Order nor to imply that the educational system was borrowed from any specific source. The outstanding achievement of the Order was to take hold of the best ideals and practices in secondary education, and to realize them by means of a teaching organization that had never been known before. Their success lay not merely in a plan of studies that capitalized the teaching experience and ability of thousands of teachers, but in the development of a thoroughly trained body of teachers, consecrated to their work.

Advantages the Jesuits had. In contrast with the teachers in Germany and England, where the number of teachers in each school was small and tenure and status were not always satisfactory, the Jesuits were in a position to carry out in practice the ideal of pupil classification with class teachers that too often in other schools remained nothing more than a pious aspiration. For these reasons they were able to perfect the best methods of instruction that were current in humanistic education, but never thoroughly practiced; this they did in the methods of drill work, in the contests and disputations, in the system of emulation. While adopting the contemporary subjects of study — Latin, Greek, and rhetoric — they gave more attention than was generally given elsewhere at the close of the sixteenth century to "erudition" or content — history, geography, antiquities, and archæology — as the need for these arose in the course of reading classical authors. With them, as with their contemporaries, Latin-speaking, cultivated by constant and vigilant practice and by dramatic performance, was an important end of education.

The most important point of difference, however, was that while humanistic education, defined in terms of linguistic achievement, had elsewhere become by the close of the sixteenth century an end in itself, the Jesuits never lost sight of the main fact that education in their hands was intended to serve moral and religious ends. Although able to win the respect and admiration of Francis Bacon, the very perfection of the educational machine was its limitation, for it tended to perpetuate educational ideals of the sixteenth century long beyond the time when they had real meaning or relevance.[1]

Secondary education in the American Colonies

Early beginnings. During the first century of the existence of the American Colonies, education in its scope and administration was colored largely by the practices and traditions with which the settlers were familiar in Europe. Since the aims and content of secondary education were virtually identical, in all the countries from which the colonists came, the chief differences were in the methods of provision by which the national origins of the various colonies were indicated. Thus private endeavor and private resources, variously raised, characterized the earliest attempt made, in 1621, to establish a "publique free schoole" in Charles City in Anglican Virginia; in Puritan Boston, on the other hand, church and civil authorities coöperated, as they did in Calvinist Geneva, Holland, and Scotland, in the creation of what was destined to become the oldest secondary school in the United States — the Boston Latin School. In both instances, however, the establishment of the schools was undertaken to promote the welfare of the Church and Commonwealth, and to prepare in the one case for a contemplated college, in the other for a college which arose almost simultaneously with the school.

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[1] See Schwickerath, R. *Jesuit Education, Its History and Principles.* (St. Louis, 1904.)

The chief interest in secondary education in the Colonial Period of the United States thus centers first around the methods by which schools were established, and by which the foundations for a public system of secondary schools were laid. It is only toward the end of this period that the second point of interest emerges, that is, the gradual changes and modifications that were introduced in the conception of the scope of the secondary-school curriculum. If anything, the difference between the Northern and Southern Colonies was intensified as time went on until the purely American practice and ideal of a public high-school system was evolved, out of its beginnings in New England, and in the nineteenth century spread over the whole country, including, but not without a struggle with the traditional attitude, the Southern States.

Establishment of schools in Massachusetts. On April 23, 1635, five years after the settlement of the town, the citizens of Boston voted "that our brother, Philemon Pormont, shalbe in-treated to become scholemaster for the teaching and nourtering of children with us." Whether the school was actually opened there is no evidence, but it is recorded that Pormont was supported by donations from liberal friends of education, and the income of a tract of land assigned to him at Muddy Brook. In the following year a subscription was raised "towards the maintenance of a free schoolmaster for the youth with us, Mr. Daniel Maud being now also chosen thereunto." The moving spirit in the establishment of this "Free Schoole," or "Grammar School," or "Latin Grammar School," or "Latin School" is said to have been the Reverend John Cotton, who was closely identified with the founding of Harvard College. The school was thus established by vote of the citizens and supported by voluntary subscriptions; in 1641, Deer Island, one of the islands given to Boston by the General Court of Massachusetts, was ordered to "be improved for the maintenance of a Free Schoole for the Towne." The income from two other islands, and land at Braintree, was assigned to the school in 1649. To this endowment bequests were left in time; in 1645, a fixed salary and a house for the schoolmaster are mentioned. In 1650 another method of supporting the school appears when "it was agreed that Mr. Woodmansey, the schoolmaster, shall have fifty pounds per annum for his teaching the schollers and his proportion to be made up by rate." The levy of a rate upon those that refused to make a voluntary contribution is already mentioned by Winthrop, in his *History of New England*, as a practice in 1645.[1] The provision of 1650 may indicate that the practice became generally established. Fees are not mentioned until 1679, and then it was only recommended that they should be paid by those who could afford them.

With slight local differences the history of the Boston Latin School was repeated in other places, beginning in Charlestown and Ipswich in 1636, at Salem in 1637, at Dorchester and Newbury in 1639, in Dedham in 1644, and in Roxbury in 1645. Never quite clear of its status in the early days, whether wholly or only partly a public school, never sure of the source of its support, whether public or private, voluntary or compulsory, the grammar school came into existence "to advance learning and perpetuate it to posterity; dreading to leave an illiterate ministry to the churches, when our present ministers shall lie in the dust." [1]

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[1] Jackson, G. L. *The Development of School Support in Colonial Massachusetts*, pp. 36 ff. (New York, 1909.)

State intervention in the new world. The rise of these schools illustrates the practice of free initiative, either by individuals or by groups, and the variety in action which came from England; at the same time they show a gradual merger of this tradition with the Calvinist principles of partnership between State and Church in the provision and support of schools. In the case of individual towns public support for schools was imposed by exigence of circumstances, but it was not long before the practice was confirmed by action of the General Court of Massachusetts in the famous "Old Deluder Satan" Act, of 1647.

Massachusetts School Ordinance of 1647

It being one of the chief projects of that old deluder Satan to keep men from the knowledge of the Scriptures, as in former times by keeping them in an unknown tongue, so in these latter times by persuading from the use of tongues, that so at least the true sense and meaning of the original might be clouded by false glosses of saint-seeming deceivers, that learning may not be buried in the grave of our fathers in the church and commonwealth, the Lord assisting our endeavors:

It is therefore ordered, That every township in this jurisdiction, after the Lord hath increased them to the number of fifty householders, shall then forthwith appoint one within their town to teach all such children as shall resort to him to write and read, whose wages shall be paid either by the parents or masters of such children, or by the inhabitants in general, by way of supply, as the major part

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[1] *New England's First Fruits.*

> of those that order the prudentials of the town shall appoint: Provided, That they that send their children be not oppressed by paying much more than they can have them taught for in other towns; and It is further ordered, That where any town shall increase to the number of one hundred families or householders, they shall set up a grammar school, the master thereof being able to instruct youth, so far as they may be fitted, for the university; Provided, That if any town neglect the performance hereof above one year, that every such town shall pay five pounds to the next school until they shall perform this order.

Establishment of schools in the other Colonies. The history of the rise of schools was similar in New Haven Colony, where the establishment of a grammar school in New Haven was ordered by the General Court on March 7, 1642. Other schools sprang up in Hartford (1639), at Guilford (1646), in Milford in 1657. In Hartford the town made an appropriation for the school, the parents of pupils paying fees, and the town bringing up the sum so received to a total of £16 a year and making provision for those who could not pay the fees. By the bequest of Edward Hopkins (1657) funds were distributed among New Haven, Hartford, Hadley, and Harvard College "for the building up of hopeful youths, both at the grammar school and college; for the public service of the country in future years." In 1650, Connecticut followed the lead of Massachusetts by adopting an act identical with that of 1647, a lead followed in 1677 by Plymouth Colony, and by New Hampshire on its separation from Massachusetts in 1680.[1]

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[1] Small, W. H., in *Early New England Schools*, p. 30 (Ginn and Company, Boston), lists the following schools in New England before 1700:

Boston, 1635–36
Charlestown, 1636
Salem, 1637
Dorchester, 1639
New Haven, 1639
Hartford, 1639
Cambridge, 1640–43
Roxbury, 1645
Braintree, 1645–46
Watertown, 1650
Ipswich, 1651
Dedham, 1653
Newbury (1658), 1687
Northampton, 1667
Hadley (1667), 1681
Hingham, 1670
Plymouth County, 1671; town, 1699
Swansea, 1673, doubtful

Difficulties under the Law of 1647. There was undoubtedly a sincere endeavor in all parts of New England to establish grammar schools, but that the endeavor was not unattended by difficulties is indicated, first, by the necessity to repeat the law of 1647 in Massachusetts and to impose heavier penalties for failure to comply with its provisions, and secondly in a number of petitions to secure exemption from their operation. Thus, in 1658, Newbury was required to pay £5 to Ipswich for failure to comply with the law. The fine was increased generally to £10, in 1671; in 1683 the fine was raised to £20, and the number of families in towns required to provide grammar schools was increased to two hundred; in the same year towns with more than five hundred families were required to provide two grammar schools and two writing schools. In 1701 the requirement of a grammar school in towns with one hundred families was restored, but the fine was raised to £20, the provision having been "shamefully neglected by divers towns." In 1718 the fine was raised to £30, and the size of towns required to provide a grammar school was increased to one hundred and fifty families, the fine increasing with the size of the town, for "by sad experience it is found that many towns that not only are obliged by law, but are very able to support a grammar school, yet choose rather to incur and pay the fine or penalty than maintain a grammar school." The same story was repeated in Connecticut. At the same time individual towns, such as Springfield in 1698, voted "that the General Court be petitioned unto that

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Windsor, Connecticut (1674), 1698
Duxbury, 1677
Rehoboth, 1678
Concord, 1680–90
Bristol, 1682
Barnstable, 1682–85, perhaps
Taunton, 1682, perhaps; 1697
Farmington, Connecticut, 1683
Woburn, 1685, unsuccessful
Lynn (1687), 1700
Springfield, before 1690
Portsmouth, New Hampshire, 1696; probably earlier
New London, Connecticut, 1698
Marblehead, 1698, doubtful
Sandwich, 1699, doubtful
Fairfield County, before 1700, probably
Exeter, New Hampshire, before 1700, probably

this town may be freed from keeping a grammar school and they keep three or four schoolmasters or school dames to teach to read English."

The fact was that the law of 1647 was ahead of its time and was not popular, partly because it took no account of the different needs under different conditions, partly because English and writing schools were felt to be more pressingly urgent, and partly because as time went on and as the frontiers were pushed forward, towns became larger in area and the population more scattered. The number of presentments for noncompliance increased in the eighteenth century, and was accompanied by an increase in the petitions for exemptions from the operation of the laws in the different Colonies. A way out was attempted by the adoption of the moving school, the school being held in different sections of a town for a length of time proportionate to the amount of money raised therein.

School support. The sources of school support came from a variety of methods. The English practice of endowments of land or funds has already been mentioned; side by side with this, and sometimes supplementing it, was the system of voluntary contributions, which in turn was supplemented by compulsory contributions or levies. The compulsory levies gave place to a more equable system of rates, which gradually supplanted all other methods for raising local funds for educational purposes, and led in time to the disappearance of tuition fees which all, except those unable to do so, were expected to pay. In addition, the General Court in each Colony came to the aid of local education with grants of land, as in Massachusetts in 1659, and in Connecticut in 1670; or with grants of money (derived from fines for selling liquor without license, and for other offenses) in Massachusetts in 1700; or with grants from the profits of the Cape fisheries, as in Plymouth Colony in 1677.

Administration. The schools were administered in the earliest years by the town meeting. In 1645, Dorchester adopted the innovation of appointing a committee of wardens or overseers, while the charge of the Roxbury school was placed in the hands of seven feoffees as a board of control. More usually, however, the responsibility was vested in the selectmen for general purposes and for the appointment of the schoolmaster, or in special committees chosen by the towns, the approval of the ministers being required, as a general rule, in the case of appointments. It was the ministers, too, who inspected the schools; the association of laymen in this task being regarded as unusual, as in Boston in 1709, when the town undertook to:

> nominate and appoint a certain number of Gentlemen of Liberal Education, together with some of the Rev^{d} Ministers of the Town... to visit y^{e} School from time to time, when and as oft, as they shall think fit, To Enform themselves of the Methods Used in Teaching of the Schollars and to inquire of their Proficiency,... the Master before being notified of their coming.... And at the said Visitation, One of the Ministers by turns to pray with the Schollars and Entertain 'em with Some Instructions of Piety Specially Adapted to their Age and Education.[1]

Thus the Church and the Commonwealth were closely associated in the provision of grammar schools, and in their general management. The early colonists undoubtedly had a sound vision of a public system of education, but in secondary education at least they did not take into account the difficulties of pioneering communities. Furthermore, the system of secondary schools was definitely intended for the few and not for the masses, even though some provision was made for poor boys of ability. In fact, a democratic system of higher education was not contemplated, and class distinctions in listing the names of students at Harvard and Yale were observed until well in the eighteenth century. None the less, the ideal that they set before themselves became later the foundation of the American public school system. For the period, however, there is much justification in the summary made by Small:

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[1] Brown, E. E. *Making of Our Middle Schools*, p. 149. (New York, Longmans, Green and Company, 1926.) See also Small, *op. cit.*, chap. xv.

> When all obtainable light has been shed on the subject but one conclusion can be reached; the grammar school was not a popular institution; it was conceived, supported, and perpetuated by the few; its extension was slow; its course in most towns was erratic; and yet, considering all the struggles of this period, it was a marvellous institution, the bed rock of future educational systems.[1]

Schools in other than New England Colonies. The provision of secondary education in other Colonies outside of New England stands out in marked contrast as sporadic, individual, and short-lived in general. Reference has already been made to the attempt to establish a school at Charles City, in 1621, by the Virginia Company, which was frustrated in the following year by Indian massacres. In general, the English practice of school endowments by individuals was here imitated — thus land and cows for the establishment of a school were bequeathed in 1634–35, by Benjamin Lyons; land by Thomas Eaton, about 1646; cows by Captain John Moon, in 1655; land by Henry King, in 1666; and land, cows, and one breeding mare by Henry Peasley, in 1675. In answer to an inquiry from the Lord Commissioners of Foreign Plantations as to "What course is taken about the instructing the people within your government in the Christian religion?" Governor Berkeley answered, in 1671, "The same that is taken in England out of towns; every man according to his ability instructing his children."

In 1692–93 a charter was obtained for the College of William and Mary, which was opened at first as a grammar school. Many boys were sent to England for their education, a practice also found in South Carolina, which only began to make provision for a local school at Charleston in 1710; this school was administered by a chartered corporation out of funds raised by gifts and legacies, and a grant made from the public treasury on condition that twelve pupils were admitted free. In Pennsylvania, William Penn directed the establishment of a public school in 1689, which was later chartered in 1697 and came to be known as the William Penn Charter School. Maryland, in 1696, passed an act "that for the propagation of the Gospel and the education of youth in this province in good letters and manners, that a certain place or places, for a free school or schools, or place of study of Latin, Greek, writing, or the like, consisting of one master, one usher, and one writing master or scribe, to a school, and one hundred scholars, more or less, according to the ability of the said free school, may be made, erected, founded, propagated, and established." As a result of contributions and special duties levied on certain imports and exports, one school, King William's School, later St. John's College, was opened at Annapolis.

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[1] Small, *op. cit.*, p. 31.

In New Amsterdam the West India Company coöperated with the Classis of Amsterdam in establishing an elementary school, in 1633. A secondary school did not follow until 1658, in response to a petition from the magistrates that "the burghers and magistrates are . . . inclined to have their children instructed in the most useful languages, the chief of which is the Latin tongue; and, as there are no means to do so here, the nearest being at Boston, in New England, a great distance from here . . . we . . . humbly request your Honors would be pleased to send us a suitable person for master of a Latin school." The school was opened in 1659, and continued in existence for eight years after the capture of the city by the English.[1]

Aims and purposes. Whatever differences there may have been in the method of providing secondary schools or education, the aims were generally the same. The aim of the Boston Latin School "for the teaching and nourtering of children with us" was more fully defined in the agreement for the establishment of the Free School in Roxbury (1645):

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[1] See Brown, *op. cit.*, chaps. III, IV, V.

> Whereas the Inhabitants of Roxbury, in consideration of their religious care of posterity, have taken into consideration how necessary the education of their children in Literature will be to fit them for public service, both in Church and Commonwealth, in succeeding ages, etc.

Similarly Governor Hopkins made his bequest

> to give some encouragement in these foreign plantations for the building up of hopeful youths both at the grammar school and college, for the public service of the country in future times.

In Maryland, by the Act of 1696, schools were to be established for the training up of young men "for the service of God, in Church and Commonwealth."

More specifically grammar schools were established to prepare for college "that learning may not be buried in the grave of our fathers in the Church and Commonwealth," according to the Massachusetts Law of 1647. In college the chief end that was looked for was the training of ministers, the prime motive in the establishment of Harvard College.

> After God had carried us safe to New England and we had builded our houses, provided necessaries for our livelihood, reared convenient places for God's worship and settled the civil government; one of the next things we longed for, and looked after, was to advance learning and perpetuate it to posterity, dreading to leave an illiterate ministry to the churches, when our present ministers shall lie in the dust.[1]

Thus the aim was stated more nearly in the terms of the Protestant educational movement in Europe than in those of the humanistic movement in England, "the education of the youth in good letters and manners," although echoes of this statement of purpose are found here and there. The coöperation of Church and State which led to the establishment of schools is thus reflected in the purpose of such establishments.

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[1] *New England's First Fruits*, p. 1.

The curriculum. The curriculum was determined largely by this aim. Pupils were expected to be able to read, usually in the Bible, and perhaps to write, although, as will be seen, provision was sometimes made to teach writing in the schools. In 1639 Dorchester appointed a schoolmaster "to teach English, Latin, and other tongues, and writing," a provision similar to that made at Salem two years earlier. In the school contemplated at Dedham, in 1644, the schoolmaster was to teach the pupils "English and Latin according to his abilities and their capacities." The school at New Haven provided, in 1659, for teaching "the scholars Latin, Greek, and Hebrew, and to fit them for college." In the same year the burghers of New Amsterdam petitioned for a schoolmaster to instruct children "in the most useful languages, the chief of which is the Latin tongue." The Maryland Act of 1696 sought to establish "places of study of Latin, Greek, writing, and the like."

Brown reconstructs the course of the Boston Latin School as follows:

> From the allusions and more direct testimony of Cotton Mather and John Barnard, we learn that in the days of Ezekiel Cheever (1670–1708), the Master's *Accidence* was used by beginners in the Boston Latin School, and that it was followed by Lily's grammar. The text authorized and prescribed in England is doubtless referred to in the latter designation. Æsop's *Fables*, the *Colloquies* of Corderius, the *Æneid*, Cicero's *De Officiis* and *Orations* (*Pro Archia* being particularly mentioned), Cato, and Ovid's *Metamorphoses* were read. An exercise in turning one of the fables into verse is referred to.[1]

How little change took place in the work of the Boston Latin School in more than a century is indicated in accounts of his school days, given by Harrison Gray Otis, Mayor of Boston in 1829, 1830, and 1831. He was admitted to the school under John Lovell, in 1773. The books read were Cheever's *Accidence*, a small Nomenclature, Corderius' *Colloquies* in the first year; Æsop's *Fables*, Eutropius, and Ward's Lily's Grammar in the second; Eutropius and Greek continued, and Clarke's *Introduction* in the third; and Cæsar's *Commentaries*, Cicero's *Orations*, Vergil's *Æneid* in the fourth, fifth, and sixth years, while Xenophon and Homer were dipped into in the highest class, and practice in making Latin was required.[1]

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[1] Brown, *op. cit.*, p. 130.

College admission requirements. The attainments expected for admission to college are indicated in the entrance requirements for Harvard:

> When any schollar is able to read Tully, or such like classical Latin author ex tempore, and make and speake true Latine in Verse and Prose, *suo ut aiunt Marte*; and decline perfectly the Paradigms of Nounes and Verbes in ye Greek tongue; then may hee bee admitted into ye College, nor shall any claime admission before such qualifications.[2]

A few years later, in 1655, this seems to have been expanded or defined; Vergil was added, and in addition to complete grounding in Greek grammar, ability to read the "Greek Testament, Isocrates, and the Minor Poets or such like" was required.[3]

Except for the addition of common arithmetic for the first time, in 1745, the entrance requirements were practically identical at Yale, Princeton, and King's College (later Columbia College) throughout the eighteenth century. The Harvard requirement of ability to speak Latin was dropped in 1734, although the practice was still enjoined in the statutes of the grammar school of William and Mary College in 1727. The only change of importance was the more specific definition of the requirements at King's College (the first three of Tully's *Select Orations*, the first three books of Vergil's *Æneid*, and the first ten chapters of St. John's Gospel in Greek in 1754, changed in 1786 to Cæsar's *Commentaries of the Gallic War*, the four *Orations of Cicero Against Catiline*, the first four books of Vergil's *Æneid*, and the Gospels from the Greek).

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[1] Jenks, H. F. *Catalogue of the Boston Public Latin School with an Historical Introduction*, pp. 35, 41, 43. (Boston, 1886.)

[2] *New England's First Fruits*, quoted in Broome, E. C. *A Historical and Critical Discussion of College Admission Requirements*, p. 18. (New York, 1902.)

[3] *Ibid.*, p. 19.

Religious instruction played an important part in the work of the schools, and the schoolmaster frequently was responsible not only for the attendance and behavior of his charges at public worship but, at the Hopkins Grammar School, he was required to question the pupils on the sermon as well as to catechize them, another practice which was common.

Discipline. The general routine of the schools was not unlike that found in England. The hours were long — from six or seven in the morning to four or five in the afternoon, according to the season of the year. There is no evidence to show that punishments were as severe as in England or Germany, although it was recognized, as at Dorchester, that "the rod of correction is an ordinance of God necessary sometimes to be dispensed unto children." Each school had its rules and regulations as in England, with definite injunctions for moral upbringing. That climate did not change the character of schoolboys is indicated in the regulation for the Hopkins Grammar School, which recalls similar English regulations:

> That the scholars behave themselves at all times, especially in schooltime, with due reverence to their master, and with sobriety and quietness among themselves, without fighting, quarreling, or calling another or any other bad names, or using bad names in cursing, taking the name of God in vain, or other profane, obscene, or corrupt speeches, which if any do, that the master forthwith give them due correction. And if any prove incorrigible in such bad manners and wicked corrupting language and speeches notwithstanding former warnings, admonitions and corrections, that such be

expelled the school as pernicious and dangerous examples to the rest.[1]

The regulations for the conduct of boys at the grammar school of William and Mary College also echo the English provision:

> Special care likewise must be taken care of their Morals, that none of the Scholars presume to tell a Lie, or Curse, or Swear, or to take or Do Any Thing obscene, or Quarrel and Fight, or Play at Cards or Dice or Set in to Drinking, or Do Any Thing else that is contrary to good Manners. And that all such Faults may be so much the more easily detected the Master shall chuse some of the most trusty Scholars both for Publick and Clandestine Observators, to give him an Account of all such Transgressions, and according to degree of heynousness of the Crime, let the Discipline be used without Respect of Persons.[1]

The teachers. The schools were small, with enrollments ranging from as low as five up to one hundred in the Boston Latin School, one of the largest. The fluctuating numbers were accompanied in most cases by an ever-changing series of schoolmasters. Examples of teachers like Elijah Corlett at Cambridge, and Ezekiel Cheever and John Lovell at Boston, who remained about forty years in one school, could be paralleled by more frequent examples where there were difficulties in finding candidates. It was perhaps a detriment to the schools that their association with the Church was so close as to lead to an equally close association between teaching and the ministry. Consequently, although there were instances in which teachers were at the same time pastors or assistant pastors, schoolmastering in general served as a stepping stone to the ministry in the eighteenth as much as in the seventeenth century.

In the Colonies, as in England, schoolmasters were expected to be "of discreet conversation, well versed in tongues," "sober

[1] Small, *op. cit.*, p. 26.

[1] Brown, *op. cit.*, p. 138.

and of good conversation," or "fit persons." The most important qualification was soundness in doctrine. Accordingly while a candidate might be nominated by the selectmen or a special committee, and voted to office by the town meeting, the approval of the minister of the town or sometimes of ministers of adjoining towns always was necessary. Scholastic requirements were only stated somewhat vaguely in such terms as "ability to teach the tongues." The salaries of schoolmasters varied from £20 to £60 a year before 1700, and rose to £80 and £100 after that date. Sometimes the annual sum promised to the schoolmasters included fees, sometimes the fees were supplementary. In practically all cases the schoolmaster was provided with a house and garden, and occasionally with several acres of land. Salaries were generally paid in kind, and with fluctuations of currency often varied in value. Boarding around was frequently a form of part payment.

Inspection. The schools were "visited" or inspected by the ministers, by the selectmen accompanied by prominent citizens, or by special committees. The practice is illustrated in the recommendations made in Boston, in 1710, by a special committee on school affairs:

> We further propose and recommend as of great service and advantage for the promoting of diligence and good literature, that the town, agreeably to the usage in England and "as we understand" in some time past practised here, do nominate and appoint a certain number of gentlemen of liberal education, together with some of the reverend ministers of the town, to be inspectors of the said school, under that name, title or denomination, to visit the school from time to time, when and as often as they shall think fit, to inform themselves of the methods used in teaching of the scholars, and to inquire of their proficiency, and be present at the performance of some of their exercises, the master being before notified of their coming, and with him to consult and advise of further methods for the advancement of learning and the good government of the school.[1]

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[1] Small, *op. cit.*, p. 339.

A similar provision was made in Connecticut Colony, in 1714, continuing merely a recommendation already made in 1660.

Decline of the grammar school. The Latin grammar schools of the colonial period probably reached the highest point of their development by the close of the seventeenth century. From that time on the difficulties attendant on the maintenance of schools increased, partly because the population was scattering, social changes were taking place, settlements were small, religious unity began to give way to numerous sects, and, finally, demands began to make themselves felt for more practical studies. It is true that the Great Awakening before the middle of the eighteenth century brought an educational revival in its train, but on the whole the foundations were already being laid for a new conception of secondary education better suited to the new conditions of the country. The period of transplantation of the European classical traditions came to an end, and the country began to evolve a new type of secondary education, influenced only in part by movements in Europe. The fact was that, although the Latin grammar school was everywhere prescribed by law in New England, few availed themselves of the preparation there given to go to college. The students entering Harvard came from a few towns — Cambridge, Boston, Roxbury, and Charlestown; many towns did not send a single student from 1644 to 1700. Thus, in 1698, Josiah Cotton, then schoolmaster at Marblehead, wrote:

> The people there being generally if not universally inclined to give their children common learning, though scholars rise but thin amongst them. There was but one that went from thence, while I kept school, to college.

Not only was this the case, but dissatisfaction with the results of Latin teaching began to make itself felt in Boston where, in 1711, the selectmen offered a memorial to the town meeting to consider more successful methods reported from Europe, for

> according to the methods used here very many hundreds of boys in this town, who by their parents were never designed for a more liberal education, have spent two, three, four years or more of their more early days at the Latin School, which have proved of very little or no benefit as to their after accomplishment.[1]

All these factors taken together combined to usher in a new period in American secondary education, the foundation for which was laid early by the emergence of private schools to teach what were regarded as more practical subjects.

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[1] Small, *op. cit.*, p. 356.

CHAPTER V

THE EARLY SCIENTIFIC MOVEMENT

Criticisms of existing secondary schools

Decline of the Latin School. By the close of the sixteenth century the rich promise of the humanistic revival had everywhere spent itself, and the new learning, so far as concerned secondary education, was exhausted in a formal and meaningless routine devoted to the study mainly of Latin grammar, Latin speech, and a somewhat narrow reading of Latin authors. That humanism which was to make a man a man had developed into a narrow and limited discipline preparatory to a new type of scholasticism in the universities, whose main concern had become not the advancement of learning, but the defense of some particular theological dogmas which, instead of liberating thought, again revived the cult of authoritarianism. The secondary school was already out of touch with the needs of the times, as expressed by one section of society, as early as the middle of the sixteenth century. The unrest which began to manifest itself at that time continued to grow in volume and extent until it found full expression, in the seventeenth century, in a body of educational literature, projects, and plans of reform for which a parallel can only be found in the last half-century.

This unrest was not confined to any one class of society that was interested in an education beyond the rudiments. The secondary school failed to give any preparation for the newly-developed career of courtier and statesman; it took no account of the needs of the rapidly-expanding pursuits of trade and commerce; it neglected entirely the growing contributions from the newly discovered world of science and mathematics; in an age when national consciousness began to awaken, and the rich vernacular literatures were beginning to develop, it made no contribution to economic life and insisted on the compulsory use of Latin; it did not advance knowledge, and, ignoring almost completely the real meaning of humanism, it devoted seven years of impressionable youth to the mere study of words. The universities alone, and the various theological sects whose mainstays they were, continued to be the strongest advocates of the narrow and formal type of secondary education. The unrest outside of the universities represented a conflict between the schoolmasters' conception of a liberal education and the conception of those who desired to find in a liberal education a growing adjustment between school and life.

Criticisms of secondary education. The general tenor of the criticisms of secondary education followed two directions; first, that the seven or more years devoted to the study of Latin produced negligible results; and, second, that the schools in general neglected matters of greater importance for the everyday world. Thus, Sir Humphrey Gilbert advocates for his proposed Queen Elizabeth's Academy a curriculum that would include, instead of school learning, "matters of action meet for present practice, both of peace and war," and taught mainly in the English language, since the "appliance in use is principally in the vulgar tongue, as in preaching, in council, in parliament, in commission, and other offices of Commonweal." The distinction between life and school learning also is emphasized by Montaigne, for "a meere bookish sufficiencie is unpleasant."

> We are kept foure or five yeares learning to understand bare words, and to joine them into clauses, then as long in proportioning a great bodie extended into foure or five parts; and five more at least ere we can succinctly know how to mingle, joine and interlace them handsomely into a subtil fashion, and into one coherent orbe. Let us leave it to those whose profession it is to doe nothing else.... Now, we that contrariwise seek not to frame a Gramarian, nor

> a Logitian, but a compleat gentleman, let us give them leave to mispend their time; we have elsewhere, and somewhat else of more import to doe.[1]

In his essay, *Of Pedantisme*, the same topic is attacked from another angle. The schools may cram their pupils full of knowledge and erudition, but fail to develop judgment. "The most great clerkes are not the most wisest men."

> We are ever readie to ask, "Hath he any skill in the Greke or Latin tongue? Can he write well? Doth he write in prose or verse?" But whether he be growne better or wiser, which should be the chiefest of his drift, that is never spoken of; we should rather enquire who is better wise than who is more wise. We labour, toyle, and plod to fill the memorie, and leave both understanding and conscience emptie.

Bacon's analysis. Gilbert and Montaigne, it may be said, were advocates of a particular type of education for a special social class. Their point of view was shared, however, by Francis Bacon, who approached the whole problem of education with far broader vision, and whose constant criticism was that the existing type of education both in schools and universities did not advance learning. Bacon is chiefly concerned with the emphasis on words rather than things, and with the worship of the authority of the past. In a pithy passage he shrewdly analyzes the causes of the situation itself:

> These four causes concurring, the admiration of ancient authors, the hate of the schoolmen, the exact study of languages, and the efficacy of preaching, did bring in an affectionate study of eloquence, and *copia* of speech, which then began to flourish. This grew speedily into an excess: for men began to hunt more after words than matter; and more after the choiceness of phrase, and the round and clean composition of the sentence, and the sweet falling of the clauses, and the varying and illustration of their works with tropes and figures, than after the weight of matter, worth of

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[1] Montaigne. *Of the Institution and Education of Children.* Florio's translation.

subject, soundness of argument, life of invention, or depth of judgment.[1]

The result of study working upon itself brought forth "indeed cobwebs of learning, admirable for the fineness of the thread and work, but of no substance or profit." Such knowledge may become formal and standardized in exact methods, and "may perchance be farther polished and illustrated, and accommodated for use and practice; but it increaseth no more in bulk and substance." Because learning is not referred to action,

> Princes find a solitude in regard of able men to serve them in causes of estate, because there is no education collegiate which is free, where such as were so disposed might give themselves to histories, modern languages, books of policy and civil discourse, and other the like embellishments unto service of state.[2]

Schools, academies, and colleges are devoted too closely to customary routine, and restrain liberty of judgment so that progress of knowledge is hampered.

> For the pursuits of men in places of this kind are confined to the writings of certain authors, as if they were prisons; and if any one dissents from them, he is straightway seized upon as a turbulent man, and one desirous of innovations.[3]

Bacon's views on the promotion of the sciences, not for their own sakes but for the glory of God and the relief of man's estate, will be discussed later in the present chapter. His influence on educational thought during the seventeenth century, through Ratke, Comenius, and others, are commonplaces to all students of the history of education.

Milton and Locke. Milton's *Tractate on Education*, that curiously encyclopedic conglomeration of the old and the new, starts with the same critical attitude that has been presented up to this point.

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[1] Bacon. *Advancement of Learning*, Book I.

[2] *Ibid.*, Book II.

[3] *Ibid.*, Book II.

> Language is but the instrument conveying to us things usefull to be known.... We do amiss to spend seven or eight years merely in scraping together so much miserable Latine and Greek, as might be learnt otherwise easily and delightfully in one year.

All that is left of the usual practice of education is but "grammatick flats and shallows." Unfitness in the professional and civic pursuits of life are

> the fruits of mispending our prime youth at the Schools and Universities as we do, either in learning meer words or such things chiefly, as were better unlearnt.

Locke merely echoes Milton when, in *Some Thoughts concerning Education*, he justifies his assigning the fourth place to learning after virtue, wisdom, and breeding.

> You will wonder, perhaps, that I put learning last, especially if I tell you I think it the least important part.... When I consider what ado is made about a little Latin and Greek, how many years are spent in it, and what a noise and business it makes to no purpose, I can hardly forbear thinking that the parents of children still live in fear of the schoolmaster's rod, which they look on as the only instrument of education; as a language or two to be its whole business. How else is it possible that a child should be chained to the oar seven, eight, or ten of the best years of his life, to get a language or two, which, I think, might be had at a good deal cheaper rate of pains and time, and be learned almost in playing?

The great business of all being virtue and wisdom, Locke proposes a curriculum that will include almost all the known subjects of his day, an encyclopedism which, as will appear below, was characteristic of his times.

That the discussion of this subject continued to be of interest in the eighteenth century is illustrated by Daniel Defoe's description in a contemporary journal of the scholar who had devoted his life to the study of Latin and Greek, but could hardly speak or write English correctly.

> In a word, he knows letters and perhaps could read half the Polyglot Bible, but knows nothing of the world, has neither read men or

> things; and this they say is a scholar. Why, then, that *Scholar is a Learned Fool.*[1]

Criticism in France. The criticisms so far cited have, with the exception of Montaigne, been limited to English writers. Conditions were similar in France and Germany. Compayré quotes Louis XIV as saying that:

> The systematic education of the youth in the colleges of the University leaves much to be desired; the pupils learn at most a little Latin but know nothing of history, geography, and most of the sciences necessary for daily intercourse.[2]

The same idea had already been expressed by Descartes in his *Discourse on Method:*

> When one is too curious about things which were practiced in past centuries, one is ignorant about those practiced in our time.[3]

The *Discourse* itself was written in French because, as the author says,

> I hope those who avail themselves only of their natural reason in its purity may be better judges of my opinion than those who believe only in writings of the ancients.[4]

Descartes' emphasis on reason and the study of mathematics was probably influential on the organization of the curriculum of the Port-Royal, and, through this school, affected later French educational thought.

Criticism in Germany. Germany exhibited the same unrest, as a result of which demands appeared for the introduction of sciences and other modern subjects in the schools, and a movement began for the use and appreciation of the vernacular. Leibnitz, coming toward the end of the seventeenth century, represented the culmination of this movement. Holding himself aloof from the universities, he devoted a considerable part of his activities to promote the establishment of an academy to encourage the study of science, history, art, trade, commerce, police, medicine, archives, schools, machines, and so on. A more direct criticism of the Latin school is to be found in his statement that:

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[1] Quoted in Barnard, H. *American Journal of Education*, XXVI, p. 426.

[2] Compayré, G. *Histoire Critique des Doctrines de l'Education en France*, I, pp. 424 f. (Paris, 1885.)

[3] Haldane, E. S., and Ross, G. R. T. *The Philosophical Works of Descartes*, I, p. 84. (Cambridge, 1911.)

[4] *Ibid.*, p. 130.

> The teaching of youth should be centered not so much upon poetry, logic and scholastic philosophy as upon *realia*, history, mathematics, geography, *vera physica*; instruction in *realia* should be pursued in collections of rarities, the study of man in anatomical theatres, chemistry in the apothecary's shop, botany in botanical, zoölogy in zoölogical gardens. The pupils should forever move in the *theatrum naturæ et artis*, receiving living knowledge and impressions.[1]

The progress of society could only be promoted through the use of the vernacular, "the mouthpiece of the new times," rather than through Latin which was bound up with traditional thought.

> On account of the disregard of the mother-tongue learned people have concerned themselves with things of no use, and have written merely for the bookshelf; the nation has been kept from knowledge. A well-developed vernacular, like highly polished glass, enhances the acuteness of the mind and gives the intellect transparent clearness.[2]

Culture *vs.* utility. If to all the quotations cited were added the almost universal advocacy of a training in physical exercises, deportment, and manners, a complete picture would be available of the extent to which faith in the secondary schools had declined in the seventeenth century. For the development of a philosophy of liberal education for our own day, the point of view of the seventeenth-century critics is significant. Their views represented a desire to modernize the secondary schools for their own time, to bring them up to the stage of progress then reached, and to organize their studies so as to minister to contemporary needs. The results attained in practice belong to the curiosities rather than to the achievements of educational history, and yet some results were attained in time from the constant attacks to which the schools were subjected. The conflict was one between culture and utility, which was to be waged continuously in the field of secondary education from that time to the present.

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[1] Quoted in Ornstein, M. *The Rôle of Scientific Societies in the Seventeenth Century*, p. 181. Reprinted by permission of the University of Chicago Press.

[2] *Ibid.*, pp. 181 f.

Education of the courtier

New needs of the nobility. Of the various classes in society that felt the shortcomings of the secondary school most strongly, the upper or noble class, whose life revolved around the Courts, was perhaps the most marked. With the rise first in Italy of strong City-States, and later in France, England, and the States of Germany of strong centralized governments, the life of the upper classes tended to concentrate around the seats of these governments, and with the gradual supersession of clerical by lay statesmen, preparation and qualifications of a different character from the old began to be demanded from those who sought distinction and preferment in political life. The type of education associated with chivalry no longer sufficed to meet the demands of the sixteenth and seventeenth centuries, although it was clearly incorporated both in the theory and practice of the new education of countries that was developed to meet the needs. The intellectual activities that the nobles had hitherto despised were now added to those physical activities in which they had excelled.

In an extensive literature, inspired largely by Castiglione's *Il Cortegiano* (1528), there was developed a clear picture of the qualities and attainments expected in the courtier of the sixteenth and seventeenth centuries or the gentleman of the seventeenth. He was to be at once a knight and a scholar, a soldier, a poet, a philosopher, and a statesman, ready to place his ability and training at the service of his prince. Graceful and dignified in bearing, he was to avoid affectation and pride. Interested in all the scholarly achievements of his day, whether literary or scientific, his conversation was to show the fruits of that interest without ostentation and with proper reserve and modesty. Wisdom that comes from learning, rather than knowledge for its own sake, was to mark his intercourse as a man, a statesman, and a courtier.

The new curriculum. Accordingly the training of the courtier was expected to include, in addition to Latin and Greek, his vernacular and modern languages for purposes of that travel which was to round out his education, military science and the soldierly arts, mathematics and sciences, history and geography, law and jurisprudence, music, drawing and painting, and a great variety of physical accomplishments. How little the grammar schools or the universities of the day could contribute to such a program is obvious. Accordingly the education of the upper classes was organized and developed apart from the regular schools of the day, either privately with tutors or in institutions commonly known as academies. That the latter were not extensive is unimportant, the fact which is of significance is that there is in this movement a widespread protest against the prevailing school. Here and there schools were established and exercised some effect, though they were not the only influences, in modifying the character of the education offered in the grammar schools.

Leaving on one side the theoretical advocacy of courtly education, such as is found in Castiglione's *Il Cortegiano* (translated by Sir Thomas Hoby as *The Courtier*, 1561), in Sir Thomas Elyot's *The Boke named the Governour* (1531), Sir Humphrey Gilbert's *Queene Elizabethe's Achademy* (c. 1570), and many others of the same tendency, the ideals of the courtly academy first found practical expression in France. In 1638, Louis XIII persuaded the Oratorians to open such an academy at Juilly where were taught mathematics, geography, physics, heraldry, French, Italian, and Spanish, French history, drawing, music, riding, and dancing. A similar academy was established in 1640 at Tours, by Richelieu, where all the sciences were taught in the French tongue. These schools had a direct influence on the establishment of the *Ritterakademien* in Germany, which will be discussed below, and may have inspired a proposal, made in 1640 in the House of Lords by the Earl of Arundel and Surrey, "that the House would consider about the erecting of an academy for the breeding and training up of young noblemen and gentlemen." Owing to the dissolution of Parliament on the day following its presentation nothing further is heard of this proposal, which recalls another also presented to the House of Lords by Lord Buckingham, twenty years earlier. Interest in this type of education seems to have justified Sir Balthazar Gerbier, a Dutchman, to issue a prospectus, in 1648, announcing the opening of an academy "wherein lovers of all noble exercises, as well as arts, sciences, and languages, are instructed and improved." The advertiser undertook to teach languages, civility, history, arithmetic, bookkeeping, geometry, cosmography, geography, natural experimental philosophy, mathematics, fortification, engraving, drawing, fencing and riding, music and dancing. This prospectus is significant not merely of the educational interests of the upper classes, but is indicative also of the wide array of modern subjects for which there must already have been some demand, as will be pointed out later.

Influence of these schools. On the immediate establishment of schools the movement for a special type of school for the upper classes does not appear to have exercised any great or lasting influence. In a history of the development of liberal education the movement is of paramount significance. Because it represented a conflict between the needs of the upper classes and the type of education standardized in the secondary school, it drew attention to a wealth of educative material neglected by this school and laid the foundation for the wider introduction of modern subjects, first in private institutions, and later in the established schools. The movement, although intended to appeal to a distinct social class, was only one of a number of similar movements which expressed the maladjustment between the classical secondary schools and the needs of contemporary life.[1]

The new scientific development

The sciences in education. The inclusion of mathematics and sciences in the curricula proposed for the education of the courtier links this movement with another, the growing interest which manifested itself in the seventeenth century in the sciences as a subject of study. The scientific movement, which gradually gained strength in the sixteenth century and showed such vigor in the next, was the outcome of that dual interest in man and nature which is associated with the spiritual and intellectual awakening known as the Renaissance. It is one of the anomalies of history that the term "humanism," which in its origin carried with it the connotation of an interest in everything that pertains to man, was gradually narrowed down to a purely literary conception, and that as a movement the interest in nature came to be subordinated to a study of the best that had been said and done in the past. In part this was due to the predominant theological and religious conflict which seized on classical literature as a preparation for its own conduct; in part, in spite of the emphasis on individual freedom, authoritarianism in the field of science continued to be too strongly entrenched to be shattered until the tools were devised for concrete objective proof; to some extent, too, the association of the sciences with astrology, natural magic, and alchemy ("the sciences themselves," according to Bacon, "which have had better intelligence and confederacy with the imagination of man, than with reason") failed to give them a place of esteem that would warrant serious study.

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[1] On courtly academies and the general subject of education of the courtier see Einstein, L., *Italian Renaissance in England* (New York, 1902); Woodward, W. H., *Studies in Education during the Age of the Renaissance*, chaps. XII and XIII (Cambridge, 1906); Adamson, J. W., *Pioneers of Modern Education*, chap. X (Cambridge, 1921); Adamson, J. W., *A Short History of Education*, chap. X (Cambridge, 1919).

Foundations laid for the new studies. By the middle of the seventeenth century an adequate foundation had already been laid for the progress of scientific study by the development of the necessary instruments and tools for experimentation and objective methods in place of speculation about the sciences. The advance made by this time is well illustrated in the following summary:

> Considering the value for clearness of thought, of counting, measuring and weighing, it is not surprising to find that in the seventeenth century, and even at the end of the sixteenth, the advance of the sciences was accompanied by increased exactness of measurement and by the invention of instruments of precision. The improvement of the simple microscope, the invention of the compound microscope, of the telescope, the micrometer, the barometer, the thermoscope, the thermometer, the pendulum clock, the improvement of the mural quadrant, sextant, spheres, astrolabes, belong to this period.[1]

To this list should be added the introduction of the decimal system by Simon Stevin (1585), and Napier's work on logarithms (1614). The tremendous strides made in the field of astronomy are indicated by the mere mention of the names of Copernicus, Tycho Brahe, Galileo, and Kepler; in medicine of Harvey, Vesalius, and Sydenham; in mathematics of Robert Recorde, Vieta, Rheticus, Stevin, Napier, and Descartes; and in physics of Galileo, Stevin, Torricelli, Van Helmont, and Boyle. The experimental method began to influence the study of botany, zoölogy, and chemistry, although the progress in these sciences was less considerable than in the others. If to these are added the development of map-making, the geographical discoveries, and the rapidly-expanding knowledge of new parts of the globe, a new world was literally opened to the vision of those who wished to see it in the seventeenth century.[1]

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[1] Libby, W. *An Introduction to the History of Science*, p. 86. (Boston, Houghton Mifflin Company, 1917.) See also Sedgwick, W. T., and Tyler, N. W. *A Short History of Science*. (New York, The Macmillan Company, 1917.)

Opposition of the universities. To this movement the universities were not merely blind, but actively opposed. Aristotelian tradition, Biblical authority, or a new scholasticism, which was a blend of both, were antagonistic to new ideas in higher education. The science of the universities may be illustrated by the following passage from a work of Daniel Schwenter (1585–1636), professor of mathematics at Altdorf:

> When a body falls it moves faster the nearer it approaches the earth. The farther it falls the more power it possesses; for everything which is heavy hastens, according to the opinion of philosophers, towards its natural place, that is, the center of the earth, just as man returning to his fatherland becomes the more eager the nearer he comes, and therefore hastens so much the more. Still another natural cause contributes to this. The air which is parted by a falling body hastens together again behind the ball and drives it always harder.[2]

The following quotation is an example of the methods of reasoning that still continued to be employed. The quotation is from the *Dianoia Astronomica* (1611) of Francesco Sizzi, a Florentine astronomer:

> There are seven windows given to animals in the domicile of the head, through which the air is admitted to the tabernacle of the body, to enlighten, to warm, and to nourish it. What are these parts of the *microcosmos?* Two nostrils, two eyes, two ears, and a mouth. So in the heavens, as in a *macrocosmos*, there are two

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[1] On the development of sciences see Libby, and Sedgwick and Tyler, *op. cit.*

[2] Quoted in Sedgwick and Tyler, *op. cit.*, p. 218.

> favorable stars, two unpropitious, two luminaries, and Mercury undecided and indifferent. From this and many other similar in nature, such as the seven metals, etc., which it were tedious to enumerate, we gather that the number of planets is necessarily seven. Moreover, these satellites of Jupiter are invisible to the naked eye, and therefore can exercise no influence on the earth, and therefore would be useless, and therefore do not exist. Besides the Jews and other nations, as well as modern Europeans, have adopted the division of the week into seven days and have named them after the seven planets. Now, if we increase the number of the planets, this whole and beautiful system falls to the ground.[1]

Similar was the injunction of the Provincial of a Jesuit Order to one of its members, Scheiner, who claimed to have discovered sunspots in 1611.

> I have read Aristotle's writings from end to end many times, and I can assure you I have nowhere found anything similar to what you describe. Go, my son, and tranquilize yourself; be assured that what you take for spots on the sun are the faults of your glasses, or of your eyes.[2]

University beginnings. The establishment of chairs in geometry and astronomy at Oxford by Savile in 1619, or the lectureship in natural philosophy by Savile's son-in-law in 1621, or of the Lucasian professorship in sciences and mathematics at Cambridge in 1663, while they provided opportunities for the work in these fields, furnished no guarantee that the universities themselves were interested in them. Indeed, Wallis, writing in 1635 of his studies at Cambridge, says:

> Mathematicks at that time with us were scarce looked upon as academical studies, but rather mechanical, as the business of traders, merchants, seamen, carpenters, surveyors of land and perhaps some almanack-makers in London. And amongst more than two hundred students at that time in our college, I do not know of any two (perhaps not any) who had more of mathematicks than I (if so

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[1] Quoted in Fahie, J. J. *Galileo, his Life and Work*, p. 103. (John Murray, London, 1903.)

[2] *Ibid.*, p. 130.

much), which was then but little; and but very few in that whole university. For the study of mathematicks was at that time more cultivated in London than in the universities.[1]

Wallis himself had acquired a good grounding in mathematics before he proceeded to the University. At Oxford the Laudian Statutes of 1636 provided for the inclusion of grammar, rhetoric, Aristotle's ethics, politics, and economics, logic, moral philosophy, geometry, and Greek for the B.A., and added astronomy, metaphysics, natural philosophy, and Hebrew for the M.A. The defect, however, according to Wallis, was "for want of learners, not of teachers," the majority in any case being private and not recognized teachers of the University.

Scientific academies. The obscurantism of the universities did not, however, check the enthusiasm of those outside of the established institutions. One of the fruits of university antagonism was the development of academies for the promotion of those studies that the universities ignored, a development which already presupposed a widespread interest among a large body of individuals. In the sixteenth century a group which called itself the *Academia Curiosorum Hominum*, or *Academia Secretorum Naturæ*, met at the house of Giambattista della Porta, in Naples, to help him in performing experiments, the condition of membership being some scientific discovery or the contribution of some fact previously unknown.

In 1601 there was organized in Rome the *Accademia dei Lincei*, for the "end not only to acquire knowledge and wisdom for living rightly and piously, but with voice and writing to reveal them unto men." With branches to be established all over the world, the aim of this Society was to promote observations, experiments, and reports in all the sciences. Under the patronage of two Medicis, Grand Duke Ferdinand II and Leopold, and inspired by Galileo and his disciples, there was established, about the middle of the seventeenth century, the

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[1] Quoted in Adamson, J. W. *A Short History of Education*, p. 186.

Accademia del Cimento, the Academy of Experiment for scientific observation and experiment. After conducting a series of experiments, mainly in physics, the Academy was discontinued in 1667 when Ferdinand became Cardinal.

The Royal Society of England. Almost contemporaneously with the establishment of this Academy the foundations were laid for the academy which was soon to be chartered as the Royal Society of England. In 1645, "diverse worthy persons, inquisitive into natural philosophy and other parts of human learning, and particularly of what has been called *New Philosophy* or *Experimental Philosophy*," began to meet in London, often at Gresham College, which, established in 1596 with seven professorships of divinity, civil law, physic (medicine), rhetoric, astronomy, geometry, and music, was itself indicative of the new movement and aimed to bring the latest results in science to the merchants of the City of London. Four years later, owing to the removal there of some of the members of this "invisible college," meetings were also held at Oxford. The scope both of the interests of the members as well as of the sciences is indicated in a letter to Dr. Wallis:

> Our business was (precluding matters of theology and state affairs) to discourse and consider Philosophical Enquiries and such as related thereunto; as Physicks, Anatomy, Geometry, Astronomy, Navigation, Staticks, Magneticks, Chymicks, Mechanicks, and natural Experiments; with the state of those studies, as then cultivated at home and abroad. We then discoursed of the circulation of the blood, the valves in the veins, the *venæ lacteæ*, the lymphatick vessels, the Copernican hypothesis, the nature of comets and new stars, the satellites of Jupiter, the oval shape (as it then appeared) of Saturne, the spots in the sun, and its turning on its own axis, the inequalities and selenography of the moon, the several phases of Venus and Mercury, the improvement of telescopes, and grinding of lenses for that purpose, the weight of air, the possibility, or impossibility of vacuities, and nature's abhorrence thereof, the Torrecellian experiment in quicksilver, the descent of heavy bodies, and the degrees of acceleration therein; and divers other things of

> like nature. Some of which were then but new discoveries, and others not so generally known and embraced, as now they are, with other things appertaining to what hath been called the *New Philosophy*, which from the times of Galileo at Florence, and Sir Francis Bacon in England, hath been much cultivated in Italy, France, Germany, and other parts abroad as well as with us in England.[1]

Meetings of the groups continued to be held in London and at Oxford until 1662, when the organization received a royal charter and was established as the Royal Society. For the present purpose interest in the establishment of the Society lies not so much either in the array of its distinguished members, lay and academic, or in the purely scientific interests that prompted the organization, but in the practical aim which was so characteristic of the century and which was stated in the preamble of the charter:

> And whereas we (Charles II) are informed that a competent number of persons of eminent learning, ingenuity, and honour, concording in their inclinations and studies towards this employment, have for some time accustomed themselves to meet weekly and orderly to confer about the hidden causes of things, with a design to establish certain and correct uncertain theories in philosophy, and by their labour in the disquisition of nature to prove themselves real benefactors to mankind, etc.[2]

The statutes further provided both for a consideration of philosophical experiments and observations, as well as "how far they or any of them may be improved for use or discovery." Bishop Thomas Sprat, the first historian of the Society, thus describes the practical scope of the investigations proposed:

> They have propounded the composing of a catalogue of all trades, works, and manufacture... taking notice of all physical receipts or secrets, instruments, tools, and engines, manual operations or sleights.... They recommended advancing the manufacture of tapestry, silk-making, melting of lead ore with pitcoal... making trials of England's earths to see if they will (not do) for perfecting of

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[1] Ornstein, M., *op. cit.*, p. 95.

[2] *Ibid.*, p. 104.

the potter's dirt. They have (compared) soils and clays for making better bricks and tiles. They started the propagation of potatoes and experiments with tobacco oil.[1]

Other scientific societies. Similar in scope, though limited in membership, was the *Académie des Sciences*, which, like the Royal Society, grew out of informal meetings of scientists and was formally organized in 1666 under the sponsorship of Colbert. After a few years of decline on Colbert's death, in 1683, the society was reorganized in 1699 under royal patronage.

In Germany a *Societas Ereunetica*, founded at Rostock in 1622 by Joachim Jungius, had a shortlived existence of two years, but was the forerunner of several others. In 1700, the Berlin Academy was established and realized one of the lifelong ambitions of Leibnitz, who later stimulated the organization of similar societies in St. Petersburg, Dresden, and Vienna. Leibnitz did not live to see the full fruition of the work that he planned for these bodies, but at least centers were established which were later to lead in the further advancement of science.

Bacon's influence. The greatest single influence in shaping the scientific interests of the seventeenth century, and in centering men's attention on nature and themselves rather than on the authority and the past, was Francis Bacon. This influence came from the strength and sincerity of his plea for the New Philosophy, from his vision, and from his insight, rather than from his own contributions to science. As a scientist his limitations were recognized, almost in his own generation; Bishop Sprat early summed these up in the statement that "he seems to take rather all that comes than to choose, to heap rather than to register." Bacon himself admitted that he was but the trumpeter calling others to the combat (*ego enim buccinator tantum*), or that "he rang the bell that summoned other wits." Through his attack on authority and his insistence on freedom he influenced not only the study of science, but morals, political and social sciences as well. His constant emphasis on observation of nature and the imitation of her processes, and on experimentation rather than on fancies and imaginations, affected methods of enquiry in other than scientific fields.

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[1] Ornstein, M., *op. cit.*, p. 120.

However limited the results of his own experiments and of the method that he advocated, his conception of the place of the sciences showed a prophetic insight that inspired his own age and the century that followed his death more than did his method or his experiments. "The true and legitimate goal of the sciences is none other than this, to endow human life with new discoveries and resources."[1] The cultivation of the sciences is for the relief of man's estate, "to extend more widely the powers and greatness of man, to secure the sovereignty of man over nature," or, as Bacon puts it in the *New Atlantis*, in describing Solomon's House, it was instituted "for the finding out of the true nature of all things, whereby God might have the more glory in the workmanship of them, and men the more fruit in their use of them." This approach, and his own plan of a survey of all the sciences combined with the extravagant hopes in the efficacy of the new method, were accepted as the guides to be followed by individual scientists and by the newly created academies and societies, and find their echoes in numerous projects and Utopias.

Education in Utopias. For the present purpose it is immaterial whether Bacon was influenced by or inspired the two Utopias that appeared at about the same time as the *New Atlantis*. The significant feature of both Campanella's *Civitas Solis*[2] (published 1623), and Johann Valentin Andreæ's *Christianopolis* (1619),[3] is the place assigned to the sciences in these ideal commonwealths. Among the chief magistrates in the City of the Sun are Wisdom, who has under him directors of grammar, logic, physics, medicine, astrology, astronomy, geometry, cosmography, music, perspective, arithmetic, poetry, rhetoric, painting, and sculpture; and Love assisted by directors of breeding, agriculture, medicine, clothing, pasturage, and coining. Andreæ assigns the central place in Christianopolis to the college, the center of justice, religion, and learning. His ideal state has a laboratory for chemical science, a pharmacy ("a veritable miniature of all nature"), an anatomy theater, a natural science laboratory or hall of physics, a place for mathematical or astronomical instruments, and a mathematics or astronomical laboratory. The preparatory studies include ancient and modern languages (fluent use of one language being acquired in a year) as well as the mother tongue, all taught through things and action.

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[1] *Novum Organum*, LXXXI.

[2] Campanella's *The City of the Sun* will be found in *Ideal Commonwealths*, edited by Henry Morley. (New York, 1885.)

[3] Held, F. E. *Christianopolis*. (New York, 1916.)

The religious conflicts and the general political unrest of the seventeenth century were at once the causes that inspired the Utopias, and at the same time directed attention to schemes and projects for world amelioration by means of a new education. Men's minds were fascinated both by the promise of the new methods, of which Ratke and Comenius were the chief proponents, and by the prospects of a new world that were opened up by the rapid development of the sciences. The cataloguing of the knowledge of the world, international communication between leaders in learning, science, and religion, and even a universal language as the solvents of all the difficulties that troubled the countries of Europe, were schemes proposed in more than one quarter.

Pansophia. It is the irony of fate that the name of Comenius should always be associated in the history of education with the reform of methods, while the greatest ambition of his life was to escape "those childish studies of Latin that are so often distasteful to me" (*puerilia illa toties nauseata Latinitatis studia*), "the thorny studies of Didactic," and to devote himself to the spread of his pansophic gospel that would save the world and bring about the millennium. It was his *Prodromus Pansophiæ* (the *Forerunner of Pansophia*) that gave him a wide hearing in England, rather than his other works. Through his friend, Samuel Hartlib, Comenius' proposal of a Pansophic College was brought to the attention of Parliament in 1641, and a site was actually proposed, but the political situation of the time prevented further action.

The full intent of this proposal was better brought out by Samuel Hartlib, born in Elbing about 1600, and settled in England in 1628. All the idealistic yearning for world reconstruction seemed to be concentrated in Hartlib. In 1641 he added to the list of Utopias his *A Description of the Famous Kingdom of Macaria*, in which he urged the application of the study of sciences to agriculture, health, industry, and so on, with public rewards for scientific contributions for human welfare. Ten years later he advocated the establishment of an agricultural college in his *Essay for Advancement of Husbandry Learning*. Hartlib had a far more comprehensive plan in his mind than the establishment of separate institutions, and in 1647, in his *Considerations tending to the happy accomplishment of England's Reformation in Church and State*, he advocated the establishment of an "Office of Publike Address in Spiritual and Temporall matters" whereby "the Glory of God and the Happinesse of this Nation may be highly advanced."

> In "matters of humane sciences," as distinguished from matters of religion, "the end of this negotiation" (i.e., of the warden of the office) should be (1) to put in practice the Lord Verulam's designations, *De Augmentis Scientiarum*, amongst the learned. (2) To help to perfit (perfect) Mr. Comenius' undertakings, chiefly in the method of teaching, languages, sciences, and of ordering schooles for all ages and qualities of scholars. Thirdly, in the matters of ingenuity his end should be to offer the most profitable inventions which he should gaine, unto the benefit of the State, that they might be publikely made use of, as the state should think most expedient.

Here, too, attention seems to have been given to the proposal by Parliament, but again political conditions were too disturbed to bring Hartlib's hopes of a millennium nearer to realization. Hartlib's contributions to educational thought in the seventeenth century cannot be overrated. Not only did he devote all his life and most of his fortune to the causes of human betterment, but he stimulated Milton to publish his *Tractate of Education* (1644), John Dury, his *Reformed School* (1649), and Sir William Petty, *The Advice of W. P. to Mr. Samuel Hartlib of some particular Parts of Learning* (1647/8). Petty, later a member of the Royal Society,

> had flying thoughts, concerning the advancement of real learning in general, but particularly of the education of youth, mathematicks, physicks, and concerning the history and art of nature.[1]

The organization of research activities. The spirit of the seventeenth-century movement again found expression in Abraham Cowley's *A Proposition for the Advancement of Experimental Philosophy* (1661). After giving the details for carrying out his proposition (£4000), Cowley stated this was a small sum in view of that "public benefit which will accrue to all mankind, and chiefly to our nation, by this foundation." Fully provided with laboratories, gardens, and animals, the resident professors were to devote themselves to the study and teaching of

> mathematics, mechanics, medicine, anatomy, chemistry, the history of animals, plants, minerals, elements, etc., agriculture, architecture, art, military, navigation, gardening; the mysteries of all trades, and improvement of them, the facture of all merchandise, all natural magic, and divination; and, briefly, all things contained in the catalogue of natural histories annexed to my Lord Bacon's *Organon*.

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[1] On Hartlib see Turnbull, G. H. *Samuel Hartlib.* (Oxford, 1920.) On Hartlib and his associates, see Adamson, J. W. *Pioneers of Modern Education*, chaps. v, vi, vii, and viii. (Cambridge, 1905.) In general see Masso, G. *Education in Utopias.* (New York, 1927.)

Four of the professors were to travel throughout the world in search of knowledge. A school was to be attached to the academy,

> Because it is deplorable to consider the loss which children make of their time at most schools, employing or rather casting away six or seven years in the learning of words only, and that too imperfectly: That a method be here established for the infusing knowledge and language at the same time into them; and that this may be their apprenticeship in natural philosophy.

Classical authors were to be selected for the *real* information that they contained; animals and plants were to be studied; English, ancient and modern geography, understanding of globes, and principles of geometry and astronomy were to be included in the curriculum; and, finally, physical development was to be promoted through exercises in riding, leaping, fencing, "mustering and training after the manner of soldiers," and "dancing for graceful comportment of their bodies." [1]

Finally, the practical tendency of the movement is well illustrated by Daniel Defoe's statement, in his *Essay upon Projects* (1697), that

> New discoveries in trade, in arts and mysteries, of manufacturing goods, or improvement of land, are without question, of as great benefit as any discoveries made in the works of nature by all the Academies and Royal Societies in the world.

Proposals and statutes for a college. In Germany, as in England, the Thirty Years' War postponed the development of as extensive a movement for modernization of education. On the other hand the German state authorities concerned themselves more with education, and the influence of the courtly academies made itself felt earlier. Further, the reform movement was more directly concerned with education than with the somewhat grandiose schemes proposed in England, but the fundamental aim was similar — to repair the losses of the

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[1] Barnard. *American Journal of Education,* XVII, pp. 327 ff.

Thirty Years' War and to promote human welfare. In France the control of the universities and of the Jesuits over education served to check reform until the eighteenth century, although, as will be noted later, the schools of Port-Royal and of the Oratorians introduced some of the elements of reformed education. In general, however, the attitude of Richelieu was the characteristic French attitude, and one which has prevailed to the present time, that secondary and higher education should be reserved for the few. In his *Testament Politique*, Richelieu stated:

> Although the knowledge of letters is eminently necessary for a country, it is certain that they need not be taught to everybody. Just as a body which had eyes on all sides would be monstrous, so the State would be if all its citizens were scholars; less obedience would be found and pride and presumption would be more common. Intercourse with humane letters would entirely banish that with commerce, would ruin agriculture, the true foster-mother of peoples, and would in a short time destroy the nursery of soldiers which rises oftener amidst rudeness and ignorance rather than in an atmosphere of polite culture; finally, it would fill France with quacks more apt to ruin private families and disturb public peace than fit to secure any advantage to the country.... If letters were profaned for all types of minds, one would see more people ready to raise doubts than to solve them, and many would be more ready to oppose truth than to defend it. It is for this reason that policy requires in a well regulated state more masters of mechanical arts than masters of liberal arts to teach letters.[1]

At the same time the statutes for a college, which were drafted by Richelieu in 1640, extended the traditional curriculum by the addition of map and plan making, chronology and history, physics, geometry, arithmetic, mechanics, optics, astronomy, geography and trigonometry, and physical exercises. Instruction was to be given in French.[2] This college was intended only for young gentlemen and nobles.

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[1] Lantoine, H. *Histoire de l'Enseignement Secondaire en France au XVII^e et au Début de XVIII^e Siècle*, pp. 196 f. (Paris, 1874.)

[2] Gréard, O. *Education et Instruction*, II, pp. 25 f. (Paris, 1886.)

Place of the vernacular. The emphasis on the employment of the vernacular in the schools was another characteristic of the times. It was generally advocated for the courtly academies, and in the writings of most of the reformers. The use of English had already been advocated in England in the sixteenth century by Ascham and Mulcaster, but the practices of the schools were little affected, even in the seventeenth century, when other pleas were made for the inclusion of the vernacular.

In Germany, the establishment in 1617 of the *Fruchtbringende Gesellschaft* inaugurated a movement for the promotion of a better appreciation of the German language. It took almost the remainder of the century before this movement was well under way, but the trend is well illustrated in a statement of J. Balthasar Schupp:

> Whoever among the Germans has use for German eloquence? ... Could I get back the time that I have lost and could I again be a professor of eloquence in a university, I would try to see to it that the youth be introduced to eloquence in their own language, for in their own language they could more easily be brought to perfection than in a foreign tongue.[1]

One of the leading advocates of the German language in learned institutions and intercourse was Christian Thomasius, a rationalist opposed to pedantry and acceptance of authority. He urged that the use of Latin restricts the spread of knowledge which could better be made accessible in German. Dismissed from the University of Leipzig for announcing that he would use the vernacular in his lectures, he was one of the moving spirits in the establishment of the University of Halle (1694), the first modern university in Germany established to promote freedom of thought and expression, and to advance the bounds of knowledge. The liberalizing influence of rationalism directed attention away from the past to the present and to the promise of the future.

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[1] Paulsen, F. *Geschichte des gelehrten Unterrichts*, 1, p. 483. (Leipzig, 1919.)

The work of Thomasius, the rationalist, was supplemented by the pietist August Hermann Francke, like Thomasius associated in the foundation of the University of Halle. While the rationalist was opposed to the controls and restraints of authority over the intellect in general, the pietist was antagonistic to the enslavement of the individual by scholastic theology and a system of orthodoxy that placed dogmas before religious devotion and practical Christianity. Both were united, for a time at any rate, in their strong opposition to traditional education and in their enthusiastic advocacy of reform. Finally, the case for German was excellently summarized by Leibnitz:

> Our learned men have shown little desire to protect the German tongue, some because they really thought that wisdom could only be clothed in Latin and Greek; others because they feared the world would discover their ignorance, at present hidden under a mask of big words. Really learned people need not fear this; for the more their wisdom and science come among the people, the more witnesses of their excellence they will have.... On account of the disregard of the mother tongue, learned people have concerned themselves with things of no use, and have written merely for the bookshelf; the nation has been kept from knowledge. A well-developed vernacular, like highly polished glass, enhances the acuteness of the mind and gives the intellect transparent clearness.[1]

French as the new universal language. The development of French as the language of intercourse and scholarship was already well under way when the seventeenth century opened. In 1550 Mestre wrote, "Our language is to-day so enriched by the study and practice of Greek and Latin that there is no science so difficult or subtle, not even high theology, that it cannot handle fully and elegantly." Louis LeRoy, professor at the Collège Royal, explained the speeches of Demosthenes in French in 1576, for "What advantage we should derive if all the disciplines were treated in our language instead of taking the trouble to learn new words." Bodin preferred to write in the vulgar language to be better understood by all native Frenchmen, and Descartes in using the vernacular was inspired by the same desire to reach a larger audience. The founding of the Académie Française, in 1629, established an authoritative center as the guardian of the purity of the French language.[1]

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[1] Quoted in Ornstein, *op. cit.*, p. 181.

The seventeenth century thus represents a period of germination, rather than fulfillment. That thoroughgoing devotion to classical languages and literature which had marked education up to this point begins to be questioned; the whole foundation of society is examined to discover its existing needs; and attempts are made that will bring the system of education into harmony with those needs.

The new schools established

Dissenting Academies in England. The practical effect of the broad movements so far outlined was slight in the English schools. Courtly academies, although they had strong advocates, were not established, the upper classes contenting themselves either with the schools as they were or employing private tutors. The grammar schools were in fact debarred by their statutes and by the licensing of teachers by the ecclesiastical authorities from adding to the established courses of the sixteenth century. Those who wanted instruction in the modern subjects studied either privately, or in private academies. So far as textbooks are concerned, there was no lack in English, history, geography, drawing, arithmetic, mathematics, sciences, or modern languages.[2]

It was not until after the middle of the seventeenth century that there arose institutions which included the newer subjects in their curricula. These institutions, known as dissenting or Nonconformist academies, stood outside of the regular system, often had to maintain a struggling existence in secret owing to the circumstances of their establishment, and yet increased in numbers over a period of half a century. The Act of Uniformity of 1662 required every teacher, public or private, in school or home, to subscribe to a declaration "that he would conform to the liturgy as by law established" and to obtain a license from the respective archbishop, bishop, or ordinary of the diocese. Three years later the Five Mile Act imposed a fine of £40 or six months' imprisonment on Nonconformist teachers.

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[1] Lavisse, E. *Histoire de France*, II, pp. 287 f.

[1] See Watson, Foster. *The Beginnings of the Teaching of Modern Subjects in England.* (London, 1909.)

To meet the educational needs of Nonconformists who were thus excluded for conscience' sake from the schools and universities, academies were established secretly and moved from place to place. One of the earliest of these was established at Rathmell in Yorkshire by Richard Frankland who, in his migratory course, taught over three hundred students in his career of thirty years. Intended at first for students of university level, younger pupils were later admitted to such academies. The ages of the students, combined with the attempt to prepare them for the church, law, medicine, and later for business careers, explains in part the extensive array of subjects sometimes found in these institutions; on the other hand the use of the term "academy" for these schools may have been intended not only to stamp them as outside of the pale of the grammar schools and universities, but to recall Milton's contribution to the subject. Milton, it will be remembered, advocated, and may, indeed, have based his advocacy on practice in his own private school, the following subjects to be studied in a nine-year course: Latin, Greek, arithmetic, geometry, Biblical history, divinity, agriculture, natural philosophy, astronomy, geography, natural history, mathematics, fortifications, navigation, architecture, medicine, anatomy, animal and vegetable life, Italian, Hebrew, Chaldee, Syriac, ethics, rhetoric, logic, economics, politics, law, theology, and Church history.

Character of the instruction. The chief interest in the academies, then, lies in the extent to which they departed from the normal courses, and dipped into the fund recommended by Milton and by many writers after him. The Nonconformist academies were at least able to command the services of competent teachers who had been ejected from the Church and the Universities. Thus the academy at Newington Green, founded by the Reverend Charles Morton, later to settle in New England, had, according to Samuel Wesley, one of his pupils, a garden, a bowling green, a fish-pond, a laboratory, an air-pump, a thermometer, and all sorts of mathematical instruments. It was here that Daniel Defoe states that he learned Latin, Greek, French, Italian, and Spanish, mathematics, natural philosophy, logic, history, geography, and politics, with English as a subject and medium of instruction. At the Sheriffhales Academy (1663–1697) a similar array of subjects was found, while

> Practical exercises accompanied the course of lectures and the students were employed at times in surveying land, composing almanacs, making sun-dials of different constructions, and dissecting animals.[1]

With the beginning of the eighteenth century the rigor of the laws was somewhat relaxed, and some of the academies achieved positions of importance, although none was long-lived. Among these were the academies of Gloucester, under Samuel Jones; the one at Northampton, under Philip Doddridge; and one at Warrington, where Joseph Priestley was for several years a teacher. Everywhere the curricula were similar to those already cited, and were characterized by the emphasis on English, modern languages, and sciences. In the eighteenth century the work was adapted as much for those who were to enter the ordinary walks of life as for those intended for the professions. Thus Priestley, in his *Essay on a Course of Liberal Education for*

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[1] Parker, I. *Dissenting Academies in England*, p. 71. (Cambridge University Press, 1914.)

Civil and Active Life (1765), aimed to remedy the defect of public and liberal education

> by giving a delineation of a set of lectures equally useful for any department of life, such as has a nearer connection with their conduct in it, and therefore may bid fair to engage their attention and be of more real use to them than any branch of learning to which they have hitherto been made to apply after they have left the grammar school.[1]

The subjects especially stressed by Priestley were English, history, geography, French, practical mathematics with some algebra and geometry, enough Latin to read the easier classics and to understand English derivatives, and chemistry. He recognized, in the same essay, a "different and better furniture of mind is requisite to be brought into the business of life," for "it was natural that the whole plan of education, from the grammar school to the finishing at the university should be calculated for their use," i.e., for the general students.[2]

Thus the Nonconformist academies, although they ultimately disappeared as distinct institutions, are of interest not merely because of the inclusion in their curricula of modern subjects, but rather on account of the new direction that they gave to the conception of a liberal education — a direction serious enough to be attacked by Clarendon as diverting many "from the main stream of national education into backwaters and into alien rivers." On the other hand Lord Wheaton, in the debate on the Schism Bill in the House of Lords in 1714, was able to say that "Such a measure was but an indifferent return for the benefit which the public had received from these schools in which the greatest men had been educated." Some sixty such academies seem to have had a longer or shorter existence in the century following the Act of Uniformity, and among the great men educated in them were John Bowes, afterwards Lord Chancellor of Ireland, Thomas Secker, later

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[1] Priestley, *Essay on a Course of Liberal Education for Civil and Active Life*, Preface, pp. i f.

[2] *Ibid.*, p. 115.

Archbishop of Canterbury, Joseph Butler, later Bishop of Durham and author of *The Analogy of Religion,* Robert Harley, Earl of Oxford, Daniel Defoe, and Isaac Watts, the hymn-writer and author of textbooks on astronomy and logic.

Reform in France. French education in the seventeenth century was so completely dominated by the Jesuit schools and the universities that little success could be expected from the new orientation. Whatever the plans of Richelieu and Louis XIV may have been for the education of the nobles, they seem to have distinguished between the education of those whose careers were to revolve round the Court and those attending the ordinary secondary schools. Yet there were two outstanding experiments in a new direction, that in the schools of Port-Royal, and that of the Oratorians.

The Port-Royalists. Leaving on one side the predominantly religious and moral aims of Port-Royal, the chief foundation on which the gentlemen of Port-Royal based their education was the principle that the pupils should be trained to think and reflect. Strongly influenced by the spirit of Descartes, they desired to develop reasonable and responsible beings. The implication of this principle was that education must begin with those things already understood by the pupil; that is, that education must proceed from the known to the unknown. Hence their emphasis on the vernacular, for according to Arnauld, in his *Réglement des Etudes*

> Our aim should be so to regulate the curriculum in our schools, that it would be practically impossible for pupils who had spent the usual length of time there, not to understand Latin easily, and not to have read the greater part of the so-called classical authors.[1]

Thus Lancelot wrote a Latin grammar in French for the use of the pupils (*Nouvelle Méthode pour apprendre facilement et en peu de Temps la Langue Latine,* 1644). History and geography were included in the curriculum, and more time than was ordinarily given in the Jesuit schools was devoted to mathematics and physical science, Arnauld's *Elêments de Gêometrie* being written for the Port-Royal schools. Whether modern foreign languages were taught is not certain; all that is known is that Lancelot wrote two textbooks on Italian and Spanish, and that Racine is reported to have known these languages on leaving Port-Royal.

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[1] Barnard, H. E. *The Little Schools of Port-Royal,* p. 124. (Cambridge University Press, 1913.)

The Oratorians. The French Congregation of the Oratory was an order founded in France, in 1611, in imitation of the Congregation of the Oratory founded in Italy, in 1575. Education was adopted as one of the functions of the Oratorians, in 1614, when a college was established at Dieppe. A *Ratio Studiorum* was drawn up by Père de Condren, in 1634, followed by another in 1645. The Collège at Juilly was taken over in 1637, and in 1638, as has already been stated, became a royal college, under the patronage of Louis XIII, for the education of noble boys. The influence of the Oratorians spread rapidly, and in spite of the competition with the Jesuit schools they had established fifty schools by the time of the Revolution.

The contribution of the Oratorians lay in their reform of the traditional humanistic curriculum, the addition of French as a foundation, and the introduction into their schools of history, geography, mathematics, and sciences. Influenced, as were the Port-Royalists, by Descartes, the Oratorians gave instruction in French until the fourth form, when the pupils were about twelve years of age; a special chair was provided in all schools for history, which included geography, and French history was taken up before ancient; Greek was given less prominence than Latin, and may in some schools not have been taught at all. To facilitate the study of Latin grammar Père de Condren wrote a *Nouvelle Méthode* (1640), with explanations in French, an idea adopted four years later by Lancelot of Port-Royal; to promote the study of mathematics Père Lamy wrote the *Elé-*

ments de Mathématiques, and for the sciences *Entretiens sur les Sciences*.

Results of their work. The influence of Port-Royal and the Oratorians was extensive in the development of French educational thought, and grew with the wider acceptance of Cartesianism. The important reform of the University, and thus too of secondary education, undertaken at the close of the seventeenth and the beginning of the eighteenth centuries by Charles Rollin, show decidedly the effect of the work of Port-Royal and the Oratorians. This is especially noticeable in Rollin's strong advocacy of French, which had already become the language of the Court and of diplomacy, and as the language of intercourse, instruction, and study. History, on which he wrote a number of volumes, was another of the modern subjects stressed by Rollin. The innovations, however, stopped there; for the rest his purpose was to put on record the best practices of his day in order to protect in its integrity the taste for *belles lettres* and safeguard them against the changes of time. Accordingly his *Traité des Etudes* (1726) deals with the study of languages, poetry, rhetoric, philosophy, and history (sacred and ancient, with the suggestion that French history be read in leisure time).

In general, the only ground gained in the traditional system by the opening of the eighteenth century, and with little modification until the Revolution, was that the grammatical, verbalistic routine in Latin, the writing of themes, and the study of language receded in favor of a study of content and literature; while the claims of the national language began to be recognized, the retention of Latin as a spoken language still continued.

Reform in Germany. The full implications of the reform movement were not felt in Germany [1] until after the Peace of

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[1] For the section on Germany see Heubaum, A., *Geschichte des deutschen Bildungswesens seit der Mitte des siebzehntes Jahrhunderts* (Berlin, 1905); Paulsen, F., *Geschichte des gelehrten Unterrichts*, I, Book III (Leipzig, 1919); and Kramer, D. G., *A. H. Francke's Pädagogische Schriften* (Langensalza, 1885).

Westphalia. Courtly academies had already made their appearance in the early part of the century, when efforts also were made for the establishment of scientific academies and a society for the promotion of the German language (*Fruchtbringende Gesellschaft*). The Thirty Years' War checked further development, and at the same time wrought social and political changes that hastened educational reform. At its close Germany saw the rise of a large number of principalities and duchies, each of which strove to reproduce the characteristics of the French court, developed its own political machinery and state service, and opened up careers that required a preparation different from that traditionally available. Added to this was a desire to utilize education to repair the ravages of the War and to fill the empty exchequers. From both the rationalistic and the pietistic viewpoints authority in thinking was questioned, while the development of the sciences supplied new instruments that directed attention away from the past to the present and the future.

Resulting changes. The first effect of these forces was felt in the education of the nobles, and those who were destined for the public services. The traditional humanistic curriculum was regarded as unsatisfactory, but was by no means entirely discarded. Thus at the Gotha gymnasium, a *Selekta* or special class was added in which the new needs were to be met by the addition to Latin and Greek of mathematics and fortifications, history and geography, French, Italian, gallantry or the arts of the courtier, logic, ethics, and metaphysics. In this the example of the *Collegium Mauritianum*, established in 1599 and reformed in 1618 by Prince Maurice of Hesse, was followed. Other institutions of the same type, and all generally known as *Ritterakademien*, knightly or courtly academies, sprang up, as at Lüneberg (1665), Wolfenbüttel (1687), Erlangen (1699), Brandenburg (1704), Berlin (1705), and Dresden (1725). In some of these Greek and Hebrew were discarded entirely, and the scope of the Latin course was modified; in all some attention was devoted to modern languages and sciences (including mathematics, surveying, architecture, and fortification), history, geography, government, cameralia, manners of court life, and physical training. In other schools which had similar purposes, but did not give the same attention to modern subjects, the emphasis was placed on German. Thus Christian Weise, first a teacher at Weissenfels and then rector at Zittau, began to give instruction in German oratory and introduced dramatics in the vernacular; at Meissen a student society for the cultivation of German language and poetry was suppressed in 1684 as taking too much time from other studies, but shortly afterwards the school was reformed along the new lines. Latin, however, continued to hold a dominant place everywhere, still with that emphasis on language, speaking, and imitation which had been developed in the sixteenth century.

One result of the general changes in the educational emphasis and of the imitation of French customs and manners was the change in the status of students. Just as the cultural movement was no longer dominated by the universities and the Church, but rather by the interests and needs of the courts, so the students began to imitate the manners and customs of the nobles. The somber garb of the scholar-clerk was displaced by the clothes of the man of the world; students began to carry swords as the mark of the gentleman, dueling was introduced, and the code of honor of the upper classes began to find its way into the universities.

Francke's Pädagogium. The work of August Hermann Francke (1663–1727), which came at the close of the seventeenth century, was but a refinement of current practice. He had himself been educated at the reformed gymnasium at Gotha — an experience which must in itself have given him an impetus in the new direction. The *Pädagogium* which he established at Halle, in 1696, and which received royal patronage in

1702, was intended to meet the needs of the day in the education of the upper classes. The course of study was first drafted in 1702, and revised with slight changes in 1721. Like the dissenting academies of England, Francke's institution recalls Milton's encyclopedic program. The curriculum included reading, writing, arithmetic, religious instruction and theology, Latin, Greek and Hebrew and, depending on the progress of the pupils, Chaldee and other "oriental" languages. Pure style in speaking and writing Latin and German, practice in writing Latin and German poetry were stressed.

In addition to these fundamental subjects there were included French, geography, history and chronology, mathematics, astronomy, and natural history (especially botany, animal history, minerals, and anatomy). Care was to be taken that all the references in the Scriptures bearing on things should be understood through the study of the real or scientific subjects, which were also intended to provide that knowledge necessary for understanding things occurring in common life and daily intercourse. To introduce variety in the school activities and to bring the pupils into contact with realities, a number of recreation-exercises were introduced, such as music, drawing, carpentry, glass-polishing, engraving, printing, paper-making, gardening, and visits to typical handicraft workshops and factories, "in order that they may get a right idea of things of every-day use and learn to name everything in Latin and German correctly with the least effort. Excursions were to be arranged for the study of botany, minerals, and topography, all of which were to be used for making collections of specimens, which in turn were to be explained in the schools. Lessons were given in elementary anatomy, "not with pictures alone but occasionally with a dog."

> Boys should be directed to these and similar things in order that all harmful idleness be avoided and because it is useful in ordinary life to have seen from youth up those things in which educated men

> are often most unskilled through lack of training. Other things may also be treated which are useful but which are by no means excluded here. With all these lessons it is not intended that they should all be taken up at the same time, but only what and as much as appears to be necessary for each according to his ability.[1]

Pupils were classified by subjects, and a strict limit was placed on the number that could be carried at any time.

An encyclopedic program of this extent could not fail but be casual and superficial, and yet it is valuable because of the insight that it gives into the educational conceptions of the time. Textbooks were now available in virtually all the subjects listed by Francke. Thus he recommended, in geography, Hübner's *Kurze Fragen aus der alten und neuen Geographie* (1693); in history, Johann Buno's *Idea Historiæ Universalis* in German, and Cellarius' *Compendium Historiæ*; in arithmetic, Ernst Struntze's *Vorteilhafte Anweisung zur Kurzen Rechnung*; in geometry, Andreæ Tacquet's *Elementa Geometriæ*; and in the sciences in general, Von Tschvinhausen's *Gründliche Anleitung zu nützlichen Wissenschaften, absonderlich zu der Mathesi und Physica, wie sie anjetze von den Gelehrtesten abgehandelt worden.*

Other attempts to broaden secondary education. The type of education so far described still continued to be for those who were intended for liberal or public professions, and to that extent did not fulfill the expectations of those who had hoped for an education that would furnish an education more specific in character for the individual and more adapted to promote the economic welfare of the State. In 1698 Francke proposed another addition to his educational institutions, which was not, however, put into operation. This was to be:

> a special pedagogium for children who should be instructed in writing, ciphering, Latin, French, and economics only, and not

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[1] Kramer, D. G. *A. H. Francke's Pädagogische Schriften*, p. 120. (Langensalza, 1885.)

continue their studies but become secretaries, clerks, merchants, administrators of estates, or learn useful arts.[1]

In 1708, Johann Georg Leib, in a series of essays, *Wie ein Regent Land und Leute verbesseren könne*, proposed an academy of manufacture in which methods could be devised for the development and improvement of manufactures. Leibnitz also at one time proposed the establishment of trade schools. Many others could be named who advocated the creation of some type of secondary school that would prepare for intermediate careers a type that had the strong support of the economists in the first half of the eighteenth century.

This movement, an outgrowth of the larger realistic movement, was only partially realized by Christopher Semler (1669–1740), a minister of the Francke group, who in 1706 established the *Mathematical and Mechanical Real School* at Halle for boys between ten and fourteen, destined for trade. The experiment failed then, and again in 1738 when Semler attempted to revive it. In 1733 the Weimar gymnasium was reorganized to provide for those "who will serve God and the Fatherland in other than political offices, principally in the army, police, administration, or commerce, and other occupations." A similar institution, the *Collegium Carolinum*, was opened in 1745 in Brunswick.

Hecker's Realschule. The first institution definitely designed for this newly recognized purpose was the *Economic-Mathematical Real School.* The conditions in Brandenburg were auspicious for such an undertaking. Frederick William and Frederick the Great were interested in any undertaking that would promote the economic and social welfare of his State and increase its natural resources. Johann Julius Hecker belonged to the pietistic school, had been a teacher in Francke's Pädagogium, and had shown his interest in the sciences in several works on anatomy, botany, and health. In 1735 he had been summoned to take charge of an orphanage in Potsdam, and had become preacher for Frederick William. His earlier training led him first to establish schools for the poor, and later to the proposal of an institution that would cater to the needs of the middle classes. The *Economic-Mathematical Real School* was opened in 1747, when Frederick the Great had already been on the throne for seven years. The main purpose was to provide a school

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[1] Barnard. *American Journal of Education*, XIX, p. 630.

> For those young people who are not destined for study but who are still found fitted to wield the pen, in business, management of estates, fine arts, mathematics, etc. These we will strive to strengthen in their natural capacities and to give the first essential introduction to their preparation.

The school was not to be strictly a trade school, as the following statement shows:

> The aim of the school is to make the pupils more able through preparatory studies to grasp the essentials in their future careers better and more easily, to think all the time of improvements and the application in their environment of whatever they have acquired in school in science and mathematics.

Besides Latin, the curriculum included writing, arithmetic, French, German, religion, history, geography, drawing, geometry, mechanics, architecture, manufactures, economics, and "curiosities." Visits were made to typical workshops and industries. The school soon lost its original character and purpose and became definitely a trade school. For the present purpose its establishment is interesting merely as evidence of recognition of the inadequacy of the existing facilities for secondary education. This recognition was well summarized by J. Matthias Gesner, in his *Thoughts on the Organization of a Gymnasium* (1756):

> It is a common fault of most of our schools that in them provision is made only for such as intend to become what are called learned

men by profession; and thus a complete acquaintance with Latin is required of all young people, without any distinction. On the contrary, those things are for the most part neglected, which would be indispensable or at least useful in common life, in the arts, in professions, at court, and in war.... A well-organized gymnasium should on the contrary be so arranged that youth of every extraction, age, character, and distinction, may find their account there, and be taught in them for the common good. Youth may with reference to their future life be divided into three classes: (1) Those who are to learn trades, arts, or to be merchants; (2) those who are to seek their fortune at court or in war; (3) those who are to remain students and go to the university.[1]

General results of the new movement in German lands. Before such a reorganization of secondary education could take place, however, the secondary schools began to disintegrate under the encyclopedic burden that they had undertaken in order to meet all needs, a new spirit of research began to affect the universities, the humanities or "philology" gradually became a separate field of study, the classicists undertook the task of putting their house in order and of finding a new justification for their subjects, the classical secondary school was revived and postponed for nearly a century the realization of proposals such as those of Gesner. This revival, however, belonged to a new era which ushered in the problems of the nineteenth century.

New forces in the American Colonial Period

Failure of the Latin Grammar School to meet needs. In Colonial America the Latin Grammar School preparing for college continued to be the typical secondary school throughout the eighteenth century. Its position began, however, to decline, first because the laws to which it owed its existence in New England ceased to be observed, and, secondly, because its monopoly began to be challenged by other schools at the secondary level that aimed to meet the demands of a new generation. The entrance requirements to the existing colleges remained unmodified until the second half of the eighteenth century, and thus helped to perpetuate the traditional preparation given in the Latin School.

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[1] Barnard, *op. cit.*, v, p. 694.

Although it continued to exist, the Latin School was unable to meet the demands of a society that was constantly adjusting itself to new situations and that was in the process of development and growth. The population increased rapidly by birth and by immigration; old communities were broken up, and the westward movement began; agriculture, industry, and commerce expanded; and social and religious uniformity began to disappear. These facts were sufficient in themselves to create that unrest that precedes new educational movements. Whether there was any direct influence from the realistic movement in England, Germany, and France has not been established. What is known, however, is that the realistic movement, on which American secondary education was ultimately to be based, began certainly with the opening of the eighteenth century, if not earlier.[1] The movement is an exact parallel to the movement in England out of which began the study of modern subjects, and was based on the pragmatic demands of society for a training in those subjects that would be immediately useful. As in England, the opportunities for the study of these subjects were provided in private schools and by private teachers.

New schools and studies. Professor Seybolt has shown, from a study of advertisements in the eighteenth-century press, covering most of the Colonies, that opportunities were available from the beginning of the century for the study of the following subjects: French, Italian, Portuguese, and Spanish;

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[1] This is due to the work of R. F. Seybolt, *Source Studies in American Colonial Education; The Private School.* Bull. No. 28, Bureau of Educational Research, College of Education, University of Illinois, 1925.

writing; arithmetic, algebra, geometry, trigonometry, surveying, dialing, gauging, navigation, and astronomy; bookkeeping and merchants' accounts; history and geography; ethics, rhetoric, logic, natural philosophy, and metaphysics. While some of these subjects, especially foreign languages, were studied as accomplishments by "young ladies and gentlemen," the majority were taken up for practical purposes. These schools announced themselves as "grammar schools," "English schools," or "English grammar schools." Of their size nothing is known, nor did they have any organization; generally the advertiser was the only teacher, and students could study as many subjects as they pleased and often in their own time. These points are immaterial for the present consideration which aims to show that the change, which had proceeded from new demands in the European countries, very soon had a parallel in this country. It is significant that as early as 1723 the following statement could be made:

> There is a school in New York, in the Broad Street, near the Exchange where Mr. John Walton, late of Yale Colledge, Teacheth Reading, Writing, Arethmatick, whole Numbers and Fractions, Vulgar and Decimal, the Mariners Art, Plain and Mercators Way; Also Geometry, Surveying, the Latin Tongue, and Greek and Hebrew Grammers, Ethicks, Rhetorick, Logick, Natural Philosophy and Metaphysicks, all or any of them for a Reasonable Price.[1]

Alexander Malcolm had a grammar school in New York, in 1732, in which he taught writing, Latin and Greek, and "all the Branches of Mathematicks, Geometry, Algebra, Geography, Navigation, Merchants Bookkeeping after the most Perfect Manner." In 1759 David James Dove, who taught English in Franklin's Academy advertised that he would give instruction in his "public Grammar School" in Philadelphia, in English, writing, bookkeeping, "practical Mathematics, consisting of some Books of the Elements of Euclid, Trigonometry, and practical Geometry," Greek, Latin, geography, rhetoric, poetry, history, moral philosophy, and physics.[1]

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[1] Seybolt, *op. cit.*, p. 99.

The general tenor of the times is illustrated from the following quotation from an essay on *Some Thoughts of Education,* which appeared in the *American Weekly Mercury* of Philadelphia, in 1735:

> Some Thoughts of Education to render the Education of Youth Easy and Effectual in respect to their Studies at School.
>
> Education is indeed a Word of a very large Extent, and implies the whole Compass of Learning, every Thing a Youth may be instructed in; But certainly every Part is not applicable to every Person, and the Counting-House and Counter require different Qualifications from those which fit a Man for the Pulpit and Bar.[2]

Franklin's proposals. Further and fully detailed evidence of the wide spread of the opportunities, and consequently of the demand for an education different from that available in the Latin Schools, will be found in Professor Seybolt's monograph. There was thus nothing novel at the time in Benjamin Franklin's *Proposals relating to the Education of Youth in Pennsylvania,* which appeared in 1749 after failing, in 1743, to attract attention to his sketch of a plan for the establishment of an academy. How or why Franklin chose the term "academy" for his proposed institution is not clear; his proposals, however, embody the tendencies of his own times, and aimed to place on an organized and public basis the unsystematic practices of the private schoolmaster. His aim was clearly stated:

> The good education of youth has been esteemed by wise men of all ages, as the surest foundation of the happiness of private families and of commonwealths. Almost all governments have therefore made it a principal object of their attention to establish and endow with proper revenues such seminaries of learning, as might supply

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[1] Seybolt, *op. cit.*, p. 95. For Malcolm's grammar school, see also Brown, *op. cit.*, p. 94.

[2] *Ibid.*, p. 103.

the succeeding age with men qualified to serve the public with honor to themselves and to their country.[1]

Although Franklin himself was inclined to include in the curriculum only modern subjects, he submitted his judgment to the pressure of the public-spirited men who were to support his plan financially and who insisted on the inclusion of the learned languages, which he later called the *chapeau bras* in his *Observations relative to the Intentions of the Original Founders of the Academy in Philadelphia*, 1789. Accordingly he was compelled to compromise and devised a formula for the selection and adaptation of the studies, as follows:

> As to their studies, it would be well if they could be taught *everything* that is useful and *everything* that is ornamental. But art is long, and their time is short. It is therefore proposed that they learn those things that are likely to be *most useful* and *most ornamental;* regard being had to the several professions for which they are intended.[2]

The Curriculum of Franklin's Academy. The curriculum included writing; drawing; arithmetic and accounts; some of the first principles of geometry and astronomy; English language, composition (style to be based on "reading some of our best authors — Tillotson, Addison, Pope, Algernon Sidney"), and pronunciation (declamation, speeches, orations, "the tutor assisting at the rehearsals, teaching, advising, and correcting their accent"); history, universal and national with chronology, ancient customs, morality, religion and politics; ancient and foreign languages, Latin, Greek, French, German, and Spanish, selected according to professional needs ("and, though all should not be compelled to learn Latin, Greek, or the modern languages, yet none that have an ardent desire to learn them should be refused"); sciences of observation and experiment (of great use afterwards "whether they are merchants, handicrafts, or divines," leading to better understanding of "many commodities and drugs," to the improvement of trade or handicraft by new inventions, to the adornment of discourses "by beautiful comparisons and...by new proofs of divine providence," and finally, conducive to the preservation of health); gardening and observation of methods of agriculture; "the history of commerce, of the invention of arts, rise of manufactures, progress of trade, change of its seats, with the reasons and causes," stimulating an interest in mechanics and "the principles of that art by which weak men perform wonders, labor is saved, and manufactures expedited." Finally:

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[1] See Barnard. *American Journal of Education*, XXVII, p. 441.

[2] *Ibid.*, p. 442.

> The idea of what is *true merit* should also be often presented to youth, explained and impressed on their minds, as consisting in an *inclination*, joined with an ability, to serve mankind, one's country, friends and family; which ability, with the blessing of God, is to be acquired or greatly increased by *true learning*; and should, indeed, be the great *aim* and *end* of all learning.[1]

Subscriptions were readily obtained, and the city government made a donation from the public treasury in response to an appeal which argued that: (1) children could receive a good education at home instead of going abroad for it; (2) the academy would meet the "great want of persons" properly qualified for public offices ("And this is the more necessary now to be provided for by the English here, as vast numbers of foreigners are yearly imported among us, totally ignorant of our laws, customs, and language"); (3) "a number of the poorest sort" could be prepared to teach in the country schools; (4) pupils would be from other parts of the country and "spend considerable sums yearly among us."[2]

Failure of Franklin's plan. A constitution embodying Franklin's *Proposals* was drawn up, in 1749, and the academy opened in 1751 with three schools—Latin, English, and mathematical, each under its own master. From the start the conditions were such as to favor the Latin master. In 1753 the institution was chartered as the Academy and Charitable School, and in 1755 rechartered as the College, Academy, and Charitable School. By the addition of a philosophical school, to which the Reverend William Smith was appointed as head, in 1754, the College consisted of that and the Latin School, while the Academy included the English and the mathematical schools. The charter of 1755 conferred on the College the right to grant degrees. The first provost of the College, which was later to become the University of Pennsylvania, was Dr. Smith.

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[1] See Barnard. *American Journal of Education*, XXVII, p. 444.

[2] Brown, *op. cit.*, p. 185.

Thus it was not very long before hardly any vestige was left of the plan closest to Franklin's heart — a new type of school with an emphasis on English and modern subjects, such as he had outlined in his *Sketch of an English School* (1749). In his *Proposals* he had recommended that the Rector be "among other things a correct and pure speaker and writer of the English tongue." In 1789, Franklin, in reviewing the history of the academy that he planned, pointed out how English was gradually ousted from the school, and how

> the Latinists were combined to decry the English school as useless. It was without example, they said, as indeed they still say, that a school for teaching the vulgar tongue, and the sciences in that tongue, was ever joined with a college, and that the Latin masters were fully competent to teach the English.[1]

The failure of Franklin's plan is all the more curious since the Reverend William Smith, in his pamphlet *A General Idea of the College of Mirania*, 1752, had developed the "idea of a Seminary of Learning, adapted to the circumstances of a young colony," of which Franklin heartily approved. The following quotation will illustrate the similarity of ideas:

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[1] *Observations relative to the Intentions of the Original Founders of the Academy in Philadelphia.* (June, 1789.) Sparks, J. *The Works of Benjamin Franklin,* II, p. 147.

> The object they (the Miranians) always kept in sight, was the easiest, simplest, and most natural method of forming the youth to the knowledge and exercise of private and public virtue; and therefore they did not scruple to reject some things commonly taught at colleges, to add others, and shorten or invert the order of others, as best suited their circumstances. They often had this sentence in their mouth, which, I think, in other words, I have read in Tillotson, that the knowledge of what tends neither directly nor indirectly to make better men and better citizens is but a knowledge of trifles. It is not learning but a specious and ingenious sort of idleness.
>
> With regard to learning, the Miranians divide the whole body of people into two grand classes. The first consists of those designed for the learned professions;... the second class consists of those designed for the mechanical professions, and all the remaining people of the country. Any scheme, then, that either proposes to teach both these grand classes after the same manner, or is wholly calculated for one of them, without regarding the other, must be very defective.... The Academy or Mechanics' school is so much like the English school and academy in Philadelphia, that a particular account of it here is useless.[1]

Rise of the Academy in New England. Franklin's institution, although it failed in its original purpose, was symptomatic of the time. Even before the Colonies were to attain their independence, a new institution for secondary education had already been established that was to serve the country during the period of transition from the Latin Grammar School to that peculiarly American institution, the public high school. Although on the curricular side the new type of secondary school reflected both the contemporary European movement, and a desire to create an educational agency better suited to the different social and economic conditions of the new country, the methods by which they were first established recalled at first the English practice of private endowments and private or local initiative.

The earliest of these institutions was the Dummer Academy, at Byfield, near Newbury, Massachusetts, opened in 1763 and incorporated in 1782. The establishment of this academy was made possible by a bequest of William Dummer, who died in 1761 and left land and a house for a grammar school. The Dummer Academy was distinguished from a Latin Grammar School rather by the method of its creation, than by its curriculum, and by the fact that, from the first, it was not intended to be a local institution. The first headmaster was Samuel Moody, and "to fit his boys for College, and fit them (the pupils) well, was Master Moody's ambition and pride; and though a majority of them stopped short of the collegiate course, still he believed that even for them there was no other discipline of equal value."[1] An English course was added later to the classical.

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[1] Barnard, *op. cit.*, XXVII, pp. 475 f. See also Snow, F. *The College Curriculum in the United States*, pp. 60 ff. (New York, 1907.)

From this academy was graduated Samuel Phillips, who proceeded to Harvard and rose to a position of eminence and distinction in his day as judge, state senator, and lieutenant-governor of Massachusetts. Samuel Phillips became the projector and chief patron of another academy at Andover, which was opened in 1778 and incorporated two years later. The funds for the establishment of this academy were provided by Phillips's relatives. The founder was acquainted with the works of Philip Doddridge, Matthew Henry, and Isaac Watts, who were identified closely with the English dissenting academies, which may have served as models for Phillips. The aim that he set before himself was "to lay the foundation of a public free school or academy for the purpose of instructing Youth, not only in English and Latin Grammar, writing, arithmetic, and those sciences wherein they are commonly taught; but more especially to learn them the *great end and real business of living*." Further with reference to the curriculum:

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[1] Hammond, C. *New England Academies and Classical Schools. Annual Report of the* (*Massachusetts*) *Board of Education, 1875–76*, p. 229.

> In order to prevent the smallest perversion of the true intent of this foundation, it is declared that the first and principal object of this institution is the promotion of true piety and virtue; the second, instruction in the English, Latin, and Greek languages, together with writing, arithmetic, music, and the art of speaking; the third, practical geometry, logic, and geography; and the fourth, such other of the liberal arts and sciences or languages, as opportunity and ability may hereafter admit, and as the trustees shall direct.[1]

The master of the school was urged "to encourage the scholars to perform some manual labor, such as gardening, or the like; so far as is consistent with cleanliness and the inclination of their parents." Although it was expected that many of the students would enter the ministry, the curriculum was already broader than that required for college entrance at that time. Another distinctive feature of this, the first incorporated academy in New England, was not only the interdenominational character of the board of trustees but also the absence of any restriction as to residence.

John Phillips, the principal benefactor of the Andover Academy, followed his nephew's example by endowing and securing the incorporation of another academy at Exeter, New Hampshire, in 1781. This school was opened, in 1783, on the same general principles as the Andover institution. The establishment of these academies was followed by many others in New England before the close of the century, but by that time political conditions and the relation of the State to education had already begun to change.

Academies elsewhere. The academy idea was not confined to New England or to Philadelphia. A number of academies were established in New York before the Revolution, as, for example, in Schenectady, Kingston, and Salem, which provided not only preparation for college but a more general course as well. Thus the principal of the Schenectady Academy, the Reverend William Andrews, opened his academy in

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[1] Hammond, C. *op. cit.*, p. 223; and Brown, *op. cit.*, pp. 195 f.

1771 as a Latin School, and then added a course for those "who may be designed to fill stations of active life exclusive of those who may be taught the learned languages." The curriculum, as announced, included reading, writing, arithmetic, geography and history, bookkeeping and merchants' accounts, and mechanic arts.[1]

Nazareth Hall had been opened in 1759 as a boarding-school for Moravian youth. It offered instruction in elementary branches and English, German, French, Latin, Greek, history, mathematics, music, and drawing. The language of instruction was at first German; later, perhaps because the school had begun to attract non-Moravians, English was adopted as the first medium.

In the Southern Colonies the development of academies, the result of private effort or the initiative of denominational groups, began about the middle of the eighteenth century, and for nearly another century furnished practically the only opportunities for secondary education in those parts.

When the Colonial Period came to a close the idea of a publicly provided Latin Grammar School had failed to achieve the desired results. The laws for its establishment and maintenance in the various commonwealths of New England had not, with a few notable exceptions, been observed, in spite of frequent reënactment with increased penalties for non-observance. Events proved, toward the close of the century, that modification of these laws could not save the Latin Grammar Schools. The reasons were not only the mobility of the population, but the inadequacy of the curriculum to meet the changing needs of the time. There was, however, bequeathed to the young Republic a new type of secondary education which was to gain in vigor, and, supported by a newborn faith in education, to furnish the sole means for secondary education for half a century or more.

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[1] See Miller, G. F. *The Academy System of the State of New York*, p. 15. (Albany, 1922.)

PART II

RISE AND DEVELOPMENT OF NATIONAL SYSTEMS OF SECONDARY EDUCATION

CHAPTER VI

IN FRANCE

Pre-Revolutionary criticism

The eighteenth century. This century, so fraught with destiny for France, was to witness an attack not only on the political and social institutions of the people, but also on education, which continued to perpetuate the traditions that had been developed during the two preceding centuries. Despite the reforms introduced by Rollin, and the undoubted influence in some quarters of Descartes and of the methods of Port-Royal, the *collèges*, now mainly in the hands of the Jesuits, Oratorians, and Doctrinaires, continued to place the emphasis in secondary education on Latin, a little Greek, and philosophy which was authoritarian in character. The Oratorians alone relaxed the requirement of spoken Latin, but the Jesuits clung strictly to their traditional program of spoken Latin, themes, orations, and verse-writing. In history the ancient period received major attention, while a mere glance was devoted to the history of France; mathematics and sciences were taught incidentally in the philosophy course; French and modern languages were ignored as special subjects. Yet, however open to criticism the *collèges* may have been, they did in fact develop a love of learning and scholarship, and produced those leaders of thought and culture, that gave France the supremacy that she enjoyed during the eighteenth century.

Yet it was from these leaders that the criticism of the educational situation came which was to culminate in the drastic innovations of the Revolution. That Rousseau should criticize the secondary schools was to be expected, but his recommendations in the *Mémoire présenté pour l'Education de son*

Fils[1] were no more radical than those of most of his contemporaries. Like them, he urged that Latin should be taught as a dead language, that emphasis should be placed on the study of the French language, geography, and history, and that mathematics, sciences, morals, and natural law should be included in a modernized curriculum.

D'Alembert. The severest strictures on the existing conditions were pronounced by D'Alembert, in his article on the *Collèges* in the famous *Encyclopédie ou Dictionnaire Raisonnée des Sciences, des Arts, et des Métiers.* Humanities, to which six years are devoted, he wrote, consisted in "teaching pupils to understand indifferently the easiest authors of antiquity; in learning indifferently to compose in Latin. I do not know that anything else is taught." Rhetoric, he said, taught the pupils to say in two pages of verbiage what could be said in two lines, and to learn figures of speech so dear to the pedant but abandoned by sensible teachers. Philosophy was studied from a compendium, and consisted of an infinity of questions beginning with the philosophy of Adam, and a number of other subjects, including ethics, "which is rejected in the end as the least important part. Finally came morals and religion, which are useless and ineffective." The best time of one's life was devoted to the acquisition of an imperfect knowledge of a dead language, with some rules of rhetoric and some principles of philosophy which one should try to forget. The requirement of spoken Latin, to which so much time was devoted, merely led to the development of an unrecognizable jargon.

D'Alembert would substitute French and modern languages (English, Italian, German, Spanish), history, chronology, geography, physics with experiments, geometry (the best of logic), fine arts, and music. From a wide program it would be possible to offer subjects suited to the abilities of each individual. To the plea that the study of a dead language is valuable because it is difficult, D'Alembert's reply was that "it is more difficult to write and speak one's own language well than to speak and write well in a dead language."

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[1] Gréard, O. *Education et Instruction*, II, p. 33. (Paris, 1889.)

Diderot, in his *Plan d'une Université Russe*,[1] placed the study of ancient languages last, after mathematics, mechanics, astronomy, natural history, physics, chemistry, general grammar, and the mother-tongue.

La Chalotais. Similar in character were the criticisms and suggestions of La Chalotais, in his *Essai d'Education nationale ou Plan d'Etudes pour la Jeunesse* (1763).[2] La Chalotais declared that of a thousand students who studied humanities, it is difficult to find ten able "to explain clearly and systematically the first elements of religion, to write a letter, to discriminate between a good reason and a bad one, between a proved fact and one that is not." The schools taught "neither the principles of morals necessary for good conduct in society, nor anything that it is important to know being a man." French and modern languages, maintained La Chalotais, should be given greater emphasis than Latin, and sciences and industry should be included in the curriculum.

Rolland. The need for some kind of reform began to be felt more seriously after the closing of the Jesuit schools, in 1762, and the expulsion of the Order two years later. Rolland d'Erceville, himself an educator, made a thorough and statesmanlike attack on the subject in his report to Parliament and in his *Plan d'Education* (1768).[3] He deplored, with those already quoted, the time wasted in the *collèges* on useless subjects, and the neglect of much that was essential for the times. He was revolted in particular by the fact that students knew more about the history of Greece and Rome than of their own country. He advocated a state system of education, supervised by a *Bureau de Correspondance* in the Ministry of Justice, with a corps of inspectors, and the training of teachers. While he would retain the ancient languages, he urged a wide expansion of the curriculum to include French, modern languages, history, mathematics, and physical training; the critical spirit was to be cultivated through logic, and character through ethics. Like Richelieu, he did not favor an increase in the number of secondary schools, but would have preferred the establishment of *pédagogies*, or junior secondary schools. The study of the ancient languages is not essential for all, he contended, but French "should enjoy the same position as Latin; if it is useful for some to understand the ancient languages, it is necessary for all to know their national language." As to modern languages their "advantages are not limited merely to facilitating business, advancing commerce, and making travel pleasant, but consist in offering a rich harvest to lovers of fine arts, to literateurs, and to scholars." [1]

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[1] Gréard, O. *Education et Instruction*, II, p. 33.

[2] Duruy, A. *L'Instruction Publique et la Révolution*, p. 37. (Paris, 1882.)

[3] *Ibid.*, pp. 38 ff.; Gréard, *op. cit.*, II, pp. 35 ff.

What lends particular significance to Rolland's work is his recognition of the need of providing an education sufficiently varied to meet the needs of individuals and of contemporary society.

> Each one ought to have the opportunity of receiving that education most suited to him; not every kind of soil responds to the same care and yields the same product; every mind does not require the same degree of culture nor do all men have the same needs or abilities; it is in relation to these abilities and needs that public education should be organized.

Hence provision should be made to prepare not merely for literary careers, but for commerce, the arts, the army, the navy, and so on.

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[1] Jourdain, C. *Histoire de l'Université de Paris*, pp. 439 ff. (Paris, 1872–76); Compayré, G. *Histoire Critique des Doctrines de l'Education en France*, II, pp. 230 ff. (Paris, 1885.)

> It seems to me that parents and teachers should be able to give to pupils that education suited to their needs and abilities. Nothing seems to me so important as to know as early as possible the bent of the young and the station to which Providence has destined them. The whole country cannot receive the same culture.

The only immediate result of Rolland's recommendations was the appointment of specialist professors of history in a few schools. The general ideas inherent in Rolland's proposals were later to serve as the basis of experimentation during the Revolution.

The period of the Revolution

The *cahiers* of 1789. So far as education was concerned, the unrest that culminated in the Revolution had had a long history. Its extent and spread can best be judged from the resolutions found in the *cahiers* of 1789.

> Public education should no longer be limited to the study of Latin. It should include the sciences that are useful for medicine, military affairs, and some pleasurable arts.
>
> There will be organized an education suited to our times. Instead of letting the young waste their time on a dead language, they will be taught morals, *belles lettres*, languages, sciences, history, law of nations, and natural law.
>
> They will be taught the exact sciences, physics, chemistry, natural history, history, geography, fine arts, and modern languages by giving to these subjects the time given to almost useless tasks of logic.[1]

Underlying this obvious discontent with the traditional curriculum of secondary education there also ran a desire for an articulated system of education adapted to various capacities. Thus, after suppressing all *collèges* early in 1793, the Convention, on September 15 of that year, decreed that:

> Independently of the elementary schools with which the Convention is occupied, there will be established in the Republic three pro-

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[1] Gréard, *op. cit.*, II, p. 41.

gressive grades of education; the first to give that information which is indispensable for artisans and workers of all kinds; the second for that further training which is necessary for other professions in society; and the third for that education whose study is difficult and not for the capacity of all men.

Talleyrand. There was no lack of projects and plans for reform to serve as a basis of action. In 1791, Talleyrand-Périgord had submitted his *Rapport sur l'Instruction publique fait au Nom du Comité de Constitution à l'Assemblée Nationale.*

> Instruction has in general the aim of perfecting man at all ages and to help ceaselessly to promote the advantage of each, and the benefit of society as a whole through enlightenment and experiment and to combat the errors of preceding generations.

Hence education should include everything that makes for the perfection of man as a national and social individual, and should open all the routes by which they may arrive at the goal for which they are destined. The curriculum proposed in Talleyrand's bill, and spread over a period of seven years, included sacred history, mythology, morals (declarations of the rights of man), elements of Latin and French, geography, the Constitution, Greek and Roman history, French history, logic, metaphysics and rhetoric, Greek, a modern language, discussions on laws, morals, metaphysics and the Constitution, geometry and algebra, mechanics, physics, elements of chemistry and physics, physical recreation, and military exercises. Through a program of this kind there was to be cultivated not a gentleman of the seventeenth century, but the citizen as a future ruler of his country. While nothing came of Talleyrand's proposal, it summarized the educational opinion of his day and forecast tendencies that were to be more fully discussed a century later.[1]

Condorcet. Another plan, which has similar significance and which met the same fate as Talleyrand's, was that of

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[1] Gréard, *op. cit.*, II, p. 42; Duruy, *op. cit.*, pp. 74 ff.

Condorcet, who was inspired both by his philosophy of the infinite perfectibility of man and by the recognition of education as a process of adaptation to contemporary needs. Outlining his plan in his *Rapport sur l'Organisation générale de l'Instruction publique présentée à l'Assemblée Nationale au Nom du Comité d'Instruction Publique,* in 1792, he asked why Latin should be given so much time when it is ceasing to be even the language of scholars. The really valuable contributions of the classics have been incorporated in modern truths, but in any case we are so remote from the ancients and have so far surpassed them in the search for truth that other methods of education are desirable. His scheme of universal education was to provide equality of opportunity for all, and "to train reason and judgment, to teach truth, to make modern men, and to adapt intelligence to the needs of the present." The scheme provided for elementary, intermediate, and secondary schools, higher education, and a national society of sciences to supervise all education. The secondary schools, of which one hundred and ten were to be provided for the country, were to give a four-year course, including pure and applied mathematics, experimental physics and chemistry, national history, psychology, logic, political constitutions, political economy and commerce, geography, philosophical history of peoples, comparative anatomy, obstetrics and veterinary art, practical medicine, military art, principles of arts and crafts, geometry of design, useful arts (food, clothing, shelter, health, and self-defense), and imitative and pleasurable arts (drawing, painting, sculpture, engraving, music, elocution, dancing, and pantomime). A place might be found where desired for Latin, Greek, or modern languages. Nor were all the subjects outlined for each year to be taken by all pupils; some would be guided by their vocational needs, some by their particular bent.[1]

Condorcet hoped by this plan to give each individual an opportunity to become more efficient as a worker, a member of society, and as a citizen, while education in the arts would promote their perfection, provide enjoyment for the masses, and furnish a means for individual happiness and the common welfare.[1] This bill, like Talleyrand's, never came up for discussion, but it furnished the basis for the first step toward a practical realization of the new tendencies.

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[1] Gréard, *op. cit.*, II, pp. 43 ff.; Duruy, *op. cit.*, pp. 79 ff.

Lakanal and the central schools. By a decree of February 25, 1795, inspired by Lakanal, central schools[2] (*écoles centrales*) were to be established throughout the country on the basis of one school for every three hundred thousand of the population. The decree provided for the appointment of fifteen professors in each school, each of which was to offer not only much of the traditional curriculum, but almost every subject hitherto advocated by reformers as well. Not only was the course encyclopedic in character, but no provision was made in the decree for the orderly organization of a curriculum. A few months later, on October 25, 1795, another decree, the work of Daunou, was passed aiming to reduce order out of chaos. One school was provided for each department. The whole course was to last six years, and to be divided into three sections of two years each, pupils being admitted at the age of twelve. The first section offered courses in drawing, natural history, ancient languages, and by special permission modern languages; the second mathematics, experimental physics, and chemistry; and the third general grammar, *belles lettres*, history, and legislation.[3] Each school was required to have a public library, a garden, a natural history cabinet, and a laboratory for physics and chemistry. Pupils could select whatever subjects they pleased in each section.

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[1] Reisner, E. H. *Nationalism and Education since 1789*, chap. II. (New York, 1922.)

[2] Gréard, *op. cit.*, II, p. 46; Duruy, *op. cit.*, pp. 130 ff.

[3] Gréard, *op. cit.*, II, p. 47; Duruy, *op. cit.*, pp. 139 ff.

The *central schools*, though started, seem to have been discredited from the beginning. They were housed in the buildings of the old *collèges*, but no provision was made for boarding the pupils. The chief criticism was against the lack of preparation of the teachers, the lack of care shown in their appointment, and the absence of a defined course of study and textbooks in each subject — a serious defect in an experiment which aimed to introduce a new orientation in the field of secondary education. Adequate preparation was not demanded for entrance; pupils were not guided in building up a harmonious curriculum; and a period of two years intervened between the study of ancient languages and *belles lettres*. Since there were no *sanctions* or privileges following the completion of the whole course, pupils selected those subjects (drawing, mathematics, and sciences) that seemed to promise immediate returns in a career or trade, to the detriment of disinterested studies. These defects helped to discredit the good intentions of the reformers to attack the supremacy of Latin, to assign a place of importance to drawing and sciences, and to adapt education to the needs of a new society. A Council of Public Instruction, after an investigation in 1799 of textbooks, outlines of courses, and enrollments by subjects, urged the abolition of the chaotic system and the substitution of a graduated course of studies. Poor administration and lack of organization, rather than an inherent defect in the principles on which they were based, foredoomed the central schools to failure, but in the short period of their existence they did succeed in developing a recognition of the value of mathematics and the sciences.

The first attack on the central schools was made in 1801, when by the regulations of the Prytanée a new type of secondary school was established in Paris providing for a seven-year course, with a common foundation of three years devoted to reading, writing, arithmetic, and Latin. The last four years offered two courses, (*a*) in humanities, rhetoric, and philosophy for civil careers, and (*b*) in mathematics, astronomy, physics, chemistry, and fortification and field artillery for military careers, with English or German in both sections. This was the first attempt to introduce a system of bifurcation, round which the chief educational conflicts of the nineteenth century were to revolve.

Organization under Napoleon

Establishment of a national system. With the establishment of the Consulate, the movement for a restoration of orderly organization in education gained momentum. In 1801, the general councils recommended the establishment of a national system, a supervised teaching body, the restoration of discipline for teachers and pupils, the establishment of scholarships, the introduction of a graded curriculum with a definite program, and the restoration of religious instruction. These recommendations furnished the basis of the regulations of 1802. The central schools were suppressed, and secondary education was to be given in communal or private schools, or in *lycées* established and maintained by the State. "Every school, established by communes or by private individuals, in which will be taught Latin, French, the rudiments of geography, history, and mathematics, will be considered as a secondary school." No secondary schools were to be established without state authorization, and all were to be placed under the supervision of inspectors. The *lycées* were established with boarding-houses, and provision was made for scholarships. Although religious instruction was restored, many parents, whose confidence had been shaken in the public schools, continued to prefer the private schools. Since the most serious stumbling-block was the lack of adequately trained teachers, it was proposed to restore the teaching congregations.

The curriculum of the secondary schools was determined in a large measure by that laid down in 1802 for the *lycées*. The chief emphasis was now placed on Latin and mathematics. The other subjects of instruction were arithmetic, geography, chronology, history (ancient, general, and French), French literature, natural history, astronomy, mineralogy, physics, and chemistry. Each school had teachers of writing, drawing, and dancing paid by the *lycées;* for music special fees had to be paid. Special committees were appointed to draw up outline courses of study and to prepare or revise textbooks.

A national system for administration. A national system of administration was not provided until the passage of the law of 1806, and not actually organized until 1808, when the Imperial University was established and charged with the control of all public education. It was then decreed that:

> No school, no educational institution may be established outside of the Imperial University without the authorization of its head. No one may open a school or teach publicly without being a member of the Imperial University.

The University administered the *lycées* directly, and supervised the communal secondary schools, now known as *collèges*. Private schools were rigorously inspected, had to pay a percentage of the fees to the State, and to send their graduating students to the *lycées* for rhetoric and philosophy. For purposes of educational administration the country was now divided into academies, each under a rector, assisted by a council and inspectors. The link between local and central authorities consisted of state inspectors, and the whole machinery was subordinate to the Grand Master of the University. In 1808 a decree was passed for the establishment of a Higher Normal School, to prepare teachers for the secondary schools. The School was actually opened in 1810, when regulations were also passed prescribing the qualifications and appointment of teachers, who were to be selected by competitive examinations. Under the conservative régime of the first Grand Master, Fontanes, there was a tendency to appoint priests as principals of schools in order to secure the confidence of parents. This conservatism, combined with the monopoly of the State in education, manifested itself not merely in greater tolerance toward religious instruction and control in the schools, but also in a return to some of the pre-Revolutionary educational ideals.

In 1809, the curriculum of the *lycées* was again revised to provide "those studies that are needed to prepare students to enter the faculties." Greek was restored, and in the sixth or last year, pupils could choose between specialization in philosophy or mathematics. The subjects of instruction now included, in the first five years, Latin, Greek, French, history (sacred and general), mythology, geography, mathematics, and rhetoric; and in the last year logic, metaphysics, ethics, optics, and astronomy (all taught in French or Latin), or mathematics, natural history, physics, and chemistry. Writing and drawing were provided by the school; music, dancing, and fencing were extras. Sciences thus received a subordinate place, and their relegation to the last year meant that the majority of pupils who left after the fifth year were not even introduced to them; history and geography were dispensed with after the fourth year; Latin, French, and mathematics accordingly remained as the chief subjects of emphasis. While spoken Latin was not restored, Latin themes, orations, and verse again received considerable attention. The only progress to be marked was the more serious cultivation of French language and literature. In 1812 this reform was extended in its application to the *collèges*.

Guizot protested, in 1816, that the new system was narrow, that the sciences were neglected, that the study of modern languages and literature was ignored, and that the needs of society were not being met. The criticism had already been anticipated two years earlier by a redistribution of the history course over six years, the introduction of a course in sciences common to pupils in the fourth, fifth, and sixth years, the addition of a seventh year devoted mainly to philosophy, and the provision of modern languages paid for as extras.

Educational monopoly. The educational régime established by Napoleon was thus continued after his fall. Politically the chief question centered round the educational monopoly of the State; educationally the chief tendency was in a more conservative direction. After 1824, when the title of the Grand Master of the University was changed to that of Minister of Ecclesiastical Affairs and Public Instruction, and a few years later to Minister of Public Instruction, an increasing number of clergy were appointed as principals and teachers, more rigorous discipline was enforced on teachers, liberal tendencies were suppressed, concessions began to be made to private schools — all in the interests of promoting loyalty and piety. During this period the length of the course was extended to eight years, by the addition of a second year in philosophy. A few changes were introduced in the curriculum but without changing the general emphasis, which was in fact further intensified by the requirement of more Latin essays in the last years of the course.[1]

A brief period of liberalism began with the July Monarchy, in 1830. Considerable opposition to government monopoly of schools had already rallied liberals and Catholics together, and a promise of liberty in education was made in 1830 by the Chamber of Deputies. For the next few years, however, most of the attention was devoted to elementary education, in which considerable reforms were effected. In spite of promises to the contrary, the Napoleonic system of administration was retained. In the field of secondary education the chief reform lay in recruiting the teaching body; a competitive

[1] Weill, G. *Histoire de l'Enseignement Secondaire en France* (*1802–1920*), pp. 60 ff. (Paris, 1921); Gréard, *op. cit.*, II, pp. 54 ff.

examination was established for the whole country, the teachers of the upper classes of the *collèges royaux* being drawn from the Higher Normal School, which, after some vicissitudes, became thoroughly established after 1830. The system of *agrégation*, in which four groups were established in 1828 — in letters, grammar, philosophy, and sciences — was further regulated in 1830 when an *agrégation* in history was added; in 1840 the *agrégation* in mathematics was separated from that in sciences. The number of students gradually increased, but they were drawn mainly from the middle classes that could afford to pay the fees, since the number of scholarships had been diminished during the period of reaction. No change took place, however, in the life of the schools which, following both tradition and the Napoleonic practice, continued half barracks and half convent in character.

The opposition to government monopoly and control of schools gradually declined, and the teaching profession and administration were slowly laicized, although the whole problem of the relation of the schools to the ecclesiastical authorities continued to be serious for many years. The chief preoccupation, however, was with the curriculum.

The French tradition. France had a remarkable tradition, almost unbroken for three hundred years, of devotion to classical studies. The failure of the authorities during the Revolution seriously to organize the central schools had led to a chaos which shook the faith of the public in the possibility of modernizing the secondary schools. The years of reaction, following the Napoleonic era and the Restoration, had dealt a serious blow to the movement for democratizing secondary education which began during the Revolution, and had again converted it into a privilege for the upper and middle classes. Further, the lack of teachers adequately prepared to teach such new subjects as were from time to time introduced inevitably invited comparisons between the new and the old.

All these facts combined to perpetuate the faith in the value of the classics and a mistrust of the modern studies. Hence Villemain, when he presented his comprehensive report to the King in 1843, could say truthfully of secondary education of his day that:

> It is the old system of Port-Royal and of the University of Paris, which for two centuries has trained for office and business so many capable men and enlightened minds.

This statement of fact could not quell the unrest which was spreading generally even among ardent supporters of the classics. Thus Guizot could say that without Latin and Greek one can only be "a *parvenu* in matters of intelligence," and yet admit that "there is something there, and something important to be changed. The course is too thin and too slow. The intellectual atmosphere of the real world is too remote from that of the *collège*."

Another criticism, to be repeated frequently in the following decades, was that of Edmond About:

> The University as I knew it in 1840, was nothing more than a factory of bachelors. The core of the system lay in the general competition between the *collèges* in Paris, the highest test of what are called serious studies. The serious studies in our day consisted in translating French into Greek and Latin and vice-versa, in handling a given subject in French or Latin and in elegant trifling in Latin verse. To this revised program of the Jesuits modern times have added history, philosophy, exact sciences and modern languages. But the last not being required for the general competition were completely discredited.... History, a study thought somewhat too absorbing, was left to some specializing students.... While the exact sciences it was good form to ignore unless one expected to enter St. Cyr and the *Ecole Polytechnique.* As for philosophy to which a whole year was devoted, it amounted merely to developing some rhetorical commonplaces by M. Cousin and could only be regarded as the last year in rhetoric. In a word the official course aimed only to propagate, extend, and improve the handling of Greek and Latin.[1]

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[1] Weill, *op. cit.*, pp. 88 f.

Others urged that the schools turned out poor bachelors, instructed and eager but unable to earn a living. The defense of those who, like Lamartine, supported the system was that the classical foundation gave the nation a fund of common ideas, and cultivated good taste and a sense of the beautiful. Some improvement in standards was also expected by the appointment of itinerant examining commissions to replace the local juries.

Demands for modernization. The recognition of other types of secondary education than the classical continued to grow with the development of the country's agricultural, industrial and commercial interests, and with the comparatively rapid expansion of the sciences to which France herself contributed not a little. Vatimesnil, as Minister of Public Instruction, had prepared a general plan for modernizing the secondary course, and in 1829 authorized schools to establish courses for special groups "in sciences and their application to industry, modern languages, and the theory of commerce." A few schools availed themselves of this permission. Guizot proposed to solve the problem by creating higher elementary schools, some of which were housed in the same buildings as the *collèges* in small towns. This type of school was to be "suited to the occupations and social conditions... important by number, activity, and influence for the peace and strength of the State," without interfering with the high standards of that education which prepared for the liberal professions. A modern and practical school, begun privately as an experiment, was taken over by the city of Paris and later became the *Collège Chaptal.* Popular sentiment, while favoring an intermediate type of secondary school, was opposed to its classification as a higher elementary school.

An attempt to remedy the situation was made by a statute of March 5, 1847, by the creation in the secondary schools of a special course (*enseignement spécial*) of three years, to which pupils might be admitted after completing three years of the regular literary course. While Latin was retained, provision was made for modern languages, sciences, mechanics, drawing, accounting, commercial law, and agriculture. The Revolution of 1848 prevented the realization of this plan, which was condemned to failure in advance as an inferior course; the commercial or practical elements led to its being dubbed "the grocer's course."

The Revolution of 1848 was followed in France, as in Germany, by a reaction that seriously affected education. Conservative ministers, like Falloux, aimed to restore the influence of the Church. The Higher Normal School in particular was made the object of attack; rigorous discipline was imposed; candidates were refused the *agrégation* on account of their political views; the *agrégation* in philosophy was suppressed largely through clerical influence. Teachers, among them Taine and Sarcy, were persecuted and left the profession; others felt themselves under constant suspicion. Numerous private schools were opened, many by religious organizations, including the Jesuits. Religious instruction was made compulsory for all boarding pupils, and for day pupils on the request of their parents.

Bifurcation. By a curious turn of fortune it appeared for a time as though the sciences were to come into their own. This was caused, however, not so much through love of the sciences as through fear of the effect of the classics in creating liberalism. It was seriously argued that the teachers of Latin inspired a love of lawlessness through the study of brigands and slaves! More serious was the argument that France needed fewer lawyers and journalists produced by a literary training, and more engineers and industrialists who might be prepared by a scientific course. The result was the decree of August 30, 1852, which established a common course for three years, followed by a bifurcation into two courses, one literary and the other scientific, with a number of subjects (French, Latin, modern languages, history, and geography) common to both. One course led up to the *baccalauréat ès lettres* and the Faculties of Letters and Law, the other to the *baccalauréat ès sciences* and the Faculties of Sciences and Medicine, and special schools, or to industrial and commercial careers. More attention was given to national history and to the influence on national development of art, religion, letters, industry, and commerce. In modern languages the aim was to be the study of foreign peoples.

The success of the reform was threatened from the start by a number of external factors. It was objected that pupils had to make a choice too early. The number of *agrégations* was limited to two, letters and sciences, so that an adequate supply of teachers especially prepared for the new work was not available; the standard of the *agrégation* was lowered to discourage futile research, independent thinking, and erudition. Difficulties were created by the attempt to keep the pupils of both groups in the same classes for the common subjects. Finally, the teachers in particular resented the rigorous control imposed by minutely detailed regulations, the requirement of daily marks, careful records, and much paper work. The minister responsible for the reform and the regulations was Fortoul, who prided himself on his ability to state exactly at any moment what was being done in every school in France.

Defects, and revision. Ten years of experience proved that the reform of 1852 could not meet with lasting success. Pupils were overworked; discipline was rigorous; the scientific course was looked upon as a method of escaping from Latin; the teaching of modern languages failed through lack of teachers and the employment of foreigners. The system of bifurcation was suppressed, in 1863, by Victor Duruy, who, although himself a liberal and restorer of the special *agrégations*, looked upon the plan of 1852 as a compromise which did not meet the actual needs of commerce, agriculture, and industry. The higher elementary schools had almost entirely disappeared, and a substitute was necessary to take their place.

In 1865, Duruy again established a special course (*enseignement spécial*) to prepare foremen, managers, and minor officials. This course, planned as a three- or four-year continuation of elementary education, was to exclude the classics and to include French, modern languages, mathematics and sciences, history and geography, bookkeeping, drawing, and surveying. Owing to lack of funds the special course was given in the same buildings as the regular secondary course. A new normal school was opened at Cluny, in 1866, to prepare special teachers for this course. The special course, however, did not prosper. The rich refused to send their own children to this course, even though they recognized its value for the purpose for which it was created; the poor could not afford to send their children to it. The social attitude against those not taking Latin (the *Pas-Latins*) found expression in the term applied to them by their schoolfellows, who called them *bestiaux.* The desire for the stamp of the *lycées*, the regular secondary course, crowded the schools with pupils who had neither the ability nor the interest to profit from a classical training (*non-valeurs sans aptitudes pour les belles lettres*).

The situation at this time was concisely summarized by Matthew Arnold, after a survey of secondary education in Europe, when he wrote:

> The current opinion is, indeed, on the continent, so wide and strong as to be fast growing irresistible, and it is not the work of authority. Authority does all that can be done in favor of the old classical training; ministers of state sing its praises. Still in the body of society there spreads a growing disbelief in Greek and Latin, at any rate as at present taught, a growing disposition to make modern languages and the natural sciences take their place. I remark this in Germany as well as in France; and in Germany, too, as in France, the movement is in no wise due to the school authorities,

> but is rather in despite, and against their advice and testimony.... All I wish now to lay stress upon is its volume and irresistibility.[1]

The French boys were overburdened with work, both in and out of school, a fact to which French writers were also beginning to direct their attention. As Arnold stated, "their allowance of school hours is more than ours, their allowance of air and exercise less."

Under the third Republic

The reform of 1871. The disaster of 1870 gave rise to new criticisms of secondary education which centered chiefly on the failure to give adequate attention to modern languages, sciences, and geography, subjects in which the German officers had shown superiority. The *lycée*, it was charged, gave too much attention to verbal and literary training, to memorization, to imitation of the classical authors, and too little to the training of reason and observation of facts. In 1871, Jules Simon, the Minister of Public Instruction under Thiers, met some of the criticisms by making the study of modern languages compulsory for six years, and by giving more time to geography. A year later he introduced a reform in the teaching of Latin, the time for memorization of grammar and the preparation of themes in prose and verse being reduced in favor of wider and more intelligent reading. "The principle of the reform is this: modern languages are studied to be spoken, and dead languages to be read."

This modernizing tendency, as might be expected, met with opposition based in part on an appeal to three centuries of tradition, in fact on the value of the theme, "the only exercise which calls for deep reflection on words, on their formation, on the variety of their endings, on their roots, on their most delicate nuances, on what makes one word unlike another." In 1874, a return was again made to the program of 1865, with somewhat more time for English and German and the postponement of any serious study of the sciences to the last year of the course, *Classe de Philosophie.* The examination for the *baccalauréat* was divided into two parts, the first at the end of the sixth year emphasizing literary studies, and the second the subjects studied in *Classe de Philosophie,* that is the seventh year.

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[1] Arnold, M. *Schools and Universities in France*, pp. 394 f. (London, 1892.)

The reform of 1880. The first reform under the Third Republic was effected in 1880 by Jules Ferry, who was now assisted by a Higher Council of Public Instruction, established by law in the same year and elected by teachers and other organized educational groups. After the many vacillations since the days of Napoleon this was probably the first genuine modern reform of French secondary education. In order to facilitate the passage of pupils from the elementary to the secondary schools, the beginning of Latin, hitherto begun in preparatory classes, was postponed to the first year of the secondary school proper. The secondary course was divided into two cycles of three years each, followed by the year of specialization in philosophy. This division was intended to enable pupils to leave school after passing through well-organized courses. The time given to Latin and Greek was reduced, mainly by abolishing Latin verse, themes, and orations, and the time thus saved was devoted to sciences.

While the active discussion was being carried on concerning the value of the classics in a modern secondary education, the practical situation pointed to a genuine demand for the *enseignement spécial,* which had continued to be offered since its introduction in 1865 by Duruy. In 1880, about one half of the pupils in the communal *collèges* and slightly more than one-fourth in the *lycées* were following this course. The course had not gained much in popular favor; it was not well organized; most of the pupils enrolled in it left before its completion; it conferred no privileges or sanctions; and teachers drafted into it from the regular course taught with little enthusiasm. In 1881 the course was extended to five years, divided into two cycles of three and two years each, and led to a *baccalauréat* of special instruction. The curriculum was modern in character, and included French, modern languages, history and geography, mathematics, natural history, physics and chemistry, bookkeeping, legislation or civics, moral instruction and political economy, and drawing. The course was subjected to criticism from two sides. On the one hand it was objected that it was not specialized enough to prepare for commerce or industry, and that it menaced the country with a new crop of aspirants for public employment. On the other hand there were those who objected that the intellectual standards were not sufficiently high, and that the course should be changed into an *enseignement classique français*, equal in quality to the classical course but different in kind. In 1886 a compromise arrangement was made by extending the course to six years, and placing the *agrégés de l'enseignement spécial* on the same footing as other *agrégés*; no change was made in the name of the course, although it was now more closely approximated to the classical course.

***Enseignement moderne* established.** Still another reform took place in 1891, under Léon Bourgeois. The term *enseignement spécial* was abolished, and in its place was established the *enseignement moderne*, emphasizing literary studies with modern languages and sciences. The reform settled nothing; it still failed to meet the needs of those planning to enter industrial and commercial careers, and, although graduates of the new course were now eligible to more positions in the public services, they were still regarded as on a plane inferior to the graduates of the classical course, who could enter the faculties. Furthermore, no special emphasis was given to the sciences in the modern course.

The ground of debate was now changed. The slight difference of one year between the modern course, whose graduates were not granted all the privileges of a secondary education, and the classical course whose graduates enjoyed all privileges, raised a new question which was to be the subject of agitation for the next ten years; this was the question of the equivalence of modern and classical courses in a liberal education, combined with a demand for equal attention to the sciences in both courses. The problem was still formulated in terms of what subject is best adapted to give a liberal education, and was even limited to a discussion of the validity of modern or classical languages for this purpose. Several decades were to pass before the whole question of secondary education was to be reformulated in terms of the type of education at the secondary level which is best suited to the needs and capacities of the pupils and the demands of society. Yet something of the kind was already foreshadowed in the statement that "whenever a new subject has found a place for itself and has proved what it can do for the human mind, it must, whether we like it or not, be given a place in education.... In the matter of education quantity is just as important as quality."[1]

The classical tradition. The time had thus arrived for a justification of the French traditional devotion to classical studies as the characteristic subjects of a secondary education. In 1885 a serious attack had already been launched against the classics by R. Frary, in his *Le Question du Latin.* The curriculum, he charged, had been overloaded — a fact already noted by many others — by the half-hearted attempt to modernize it. The only result had been to provide an education that was neither modern nor classical. As to the arguments that were put forward in favor of the classics, Frary insisted that only the minority really benefited from the mental training claimed for them or reached the stage when they could genuinely appreciate their charm. Latin was no longer essential for a proper appreciation of the French language, while the study of ancient democracies had but little value for modern times, since an entirely different civilization had been developed in the course of centuries. Vested interests and an established routine alone maintained the survival of the classics in education. Secondary education needed to be completely reformed to give France her rightful position in the world competition.

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[1] Quoted in Weill, *op. cit.*, pp. 175 f.

The case for the classics was stated by Alfred Fouillée (*L'Enseignement au Point de Vue Nationale*).[1] The study of the humanities crowned by a course in philosophy alone constituted a liberal education, which should develop a love of the true, the beautiful, and the good. Even in a democratic country the traditions in letters, arts, philosophy, science, and politics could be continued only by an intellectual *élite*, the best preparation for whom is to be found in the study of the ancient humanities. Even the mediocre student could derive some benefit from the patient and serious efforts required by the traditional courses. An education can only be genuinely liberal in so far as it is disinterested or detached; the danger in a democracy is the tendency to utilitarianism and industrialism, which can only be offset by men "whose minds are of the highest order, who are superior to the interests of the moment, who are least affected by purely utilitarian tendencies, and most capable of perpetuating from generation to generation that historical and permanent tradition which constitutes the true national will."

The publication, in 1890, of the official *Instructions concernant les Programmes de l'Enseignement Secondaire Classique* indicated that the authorities were inspired by the same ideals as Fouillée. The determining factors in organizing a curriculum should be the education and disciplinary values of subjects, rather than the demands of utility. The true aims of education should be the cultivation of a taste for study, train-

[1] Fouillée, A. *Education from a National Standpoint.* (New York, 1892.)

ing in methods of work, and development of ability to understand, assimilate, and even to create. The chief means of education lie in letters, which develop neatness, precision, and logic; which elevate and ennoble by intercourse with great minds and the example of perfect works; and which transmit the heritage of ideas and traditions embodying the experience of the best endowed races. The young must be protected, as long as possible, from the stagnation that comes from early specialization.

That the French tradition was classical needed no long argument, and even the opponents of classical studies would admit the statement of M. Gréard that "classical culture is the basis of our literature, of our arts, of our history, and of all our national traditions. It has been the leaven of the genius of France. It is the school of thought, and of the thought that liberates and refines." Yet France, like her neighbors whose devotion to the classical humanities had less inherent justification, was confronted, at the close of the nineteenth century, by the inescapable fact that there was discontent with secondary education; that the times and conditions had changed and demanded a reform better adapted to contemporary needs; that many pupils were enrolled in the modern secondary course, even though debarred from some privileges; and, finally, that many were enrolled in the classical course who encumbered the classrooms without any prospect of ultimate success. The problem of educational opportunity for all had not yet arisen. The question was still solely one of educational values; whether modern subjects could be recognized on a parity with the classics for purposes of imparting a liberal education. Accompanying this question was the further desire to incorporate in the secondary system a type of education that could be accepted as liberal, and at the same time prepare for practical careers of modern society rather than for the liberal professions. The agitation, fundamentally, was for greater elasticity in the secondary curriculum by the introduction of modern subjects as fit rivals of the classics.

The Ribot Commission. To settle the many questions the Chamber of Deputies, on December 12, 1898, appointed a Parliamentary Commission on Education, under the presidency of M. Alexandre Ribot, to institute an inquiry into the status of secondary education. The Commission held thirty-eight sessions, and received depositions from officials in the educational service, teachers, distinguished laymen, chambers of commerce, and local administrative authorities. Every aspect of secondary education was canvassed, but the topic most pertinent at this point is the attitude revealed on modern and classical studies. Among the individuals whose views were presented the opinion was almost unanimous that the classical course must be retained for the preservation and continuity of French thought and culture, but equally unanimous was the recommendation that it should be reserved for the few who could profit by it, while the rest should be diverted to modern courses, for which equal recognition should be given in the way of privileges. There were some who were opposed to the artificial protection of the classics; some who did not believe that a knowledge of Latin is essential for a good command of the French language; and some who maintained that the disinterested study of the classics was a good preparation for other studies of an entirely different nature. In general, probably all would have subscribed to the statement of Léon Bourgeois that "it is by very different routes that each individual can reach the top in a democracy," provided that the classical course was retained as one of these routes.

The opinions of the Chamber of Commerce fell into three groups, with a large majority advocating the retention of the traditional course. One group, small in number, declared without qualifications that a classical education was not a good preparation for industrial and commercial careers. A second, and probably the largest, submitted the view that while the classical course was excellent for those who planned to enter liberal professions, a modern course in some form or other was preferable for those who looked to commercial and industrial pursuits. The third and also a small group was unequivocally in favor of the classics and their value for practical modern careers.

The general tenor of the inquiry is well expressed in a summarizing statement of M. Ribot:

> For an *élite* able to attain to the reading in their texts of the masterpieces of the ancients, nothing can take the place of direct contact with these masterpieces. But is it necessary to declare as incapable of deriving higher culture, all those who have no taste or ability for ancient languages?

The Commission adopted the following principles as the basis of its general resolutions:

> It is necessary to maintain and strengthen the classical traditions. But the essential condition of this maintenance and of the improvement of the classical course is the reduction of the clientele to the just proportions imposed by the difficulty of the studies and the limit of the nation's needs. Here the need, pedagogically and socially, is absolute. The modern course must be maintained and allowed to exist for it has a right to exist. But it will not exist fully and completely until the day when it ceases to be subjected to the inequality which is sheer injustice.... Humanism, whether ancient or modern, no longer has sole possession of the *lycée* or *collège*. It must make room for a companion, very humble but very exacting, whose very name is displeasing to refined ears — utility, or, as the Germans say, realism. International competition, the struggle for existence, recalls to us the old adage in which common sense is expressed: First live, then philosophize.[1]

The reform of 1902. The recommendations of the Commission, after some conflict between these and recommendations proposed at the same time by the Higher Council of Public Instruction had been settled, furnished the basis for the reform introduced in 1902 by the Minister of Public Instruction, M. Georges Leygues. The new system was to be more flexible, and was to provide for a variety of choices. Classical and modern courses were to be established side by side, and to lead to a single *baccalauréat.* The new system provided for a course of seven years, divided into two cycles of four and three years respectively. The first cycle allowed a choice of two sections, one with Latin and the other emphasizing French, sciences, and drawing. Greek could be taken up in the third year. The first cycle was to be complete in itself, and to lead to a *certificat d'études secondaires* on the recommendations of the faculty and the record of the pupils. In the first two years of the second cycle a choice of four courses was available, as follows: (1) Latin and Greek; (2) Latin with more advanced study of modern languages; (3) Latin with more advanced study of sciences; and (4) modern languages and sciences. At the close of each course students could present themselves for the first part of the examination of the *baccalauréat.* In the last, the seventh, year a choice between specialization in philosophy or in mathematics was offered, followed at the close by the second part of the *baccalauréat.*

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[1] On the *Enquête* of M. Ribot, see Part III, *The Classics in England, France, and Germany*, of *The Classical Investigation*, by I. L. Kandel, pp. 54 ff. (Princeton, 1925.)

The choice thus lay between Latin and modern languages and sciences; the common subjects were history and geography, and mathematics and sciences; but the last two groups of subjects were allotted more time in the modern course. The secondary school thus attempted, though with varied content, to retain the French loyalty to the classical spirit and to incorporate, side by side with it, the scientific spirit. The contrast between the two was thus stated by M. Liard:

> There are two types of culture, the classical and the scientific.... Classical culture, which in France has been traditional since the Renaissance, and which has been one of our honors, one of our glo-

ries, teaches how to understand the full meaning of words and their exact relation to ideas, to arrange them with beauty and correctness, to appreciate the sentiments of the soul in their most delicate shades of meaning, to marshal words in varieties of expression corresponding to the infinite variety of sentiments, to appreciate and to have a taste for the most varied forms of beauty, to see in every question that which is general and human, finally, it transmits from age to age, through the classical texts and the works of philosophers an old fund of truths, of wisdom, of generosity which are the heritage of centuries that have gone to new stages of thinking and feeling humanity.

Side by side with this culture there has gradually found a place, with the continued progress of the sciences, scientific culture in the large sense of the word. This too, whether it be history, geography, mathematics, physics, chemistry, natural history, teaches how to combine ideas but in their necessary or real relations. Its end is the establishment of facts, the knowledge of the laws which unite them, in a word the proof of the truths that result. It is an instrument of method, of precision, of exactness, of discipline, individual and collective; it reveals his power to man and shows him its extent and limits; at the same time it is in its way philosophy, and if the bold interpretation of metaphysicians are unknown to it, it teaches that all phenomena, even though seriously contradictory, are bound together by constant relations and that, by the network of its laws, the world is harmony and unity.[1]

Thus the conflict of nearly a century about the relative values of ancient and modern subjects was brought to a close for the time being by the grant of equal recognition for purposes of university entrance. At the same time it was expected that the graduates of the modern section would enter practical careers, and the others the universities and the liberal professions. Partly with the practical end in view, and partly for pedagogical reasons, the direct method was employed in the teaching of modern languages. At the same time it was recognized, as it had been recognized some ten years earlier, that the teaching of the classics stood in need of reform, mainly with an emphasis on extensive reading and absorption of the classical spirit rather than on excessive drill in language. In all sections meticulous care was devoted to the teaching of the mother tongue, although it was claimed that the students of classics had an advantage over the modern specialists. While more serious attention was now given to the sciences, the methods of instruction still continued along theoretical lines.

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[1] Quoted in Board of Education, *Special Reports on Educational Subjects*, XXIV, pp. 206 f. (London, 1911.)

The reform a compromise. Although the long conflict was for the time being brought to a close, the reform was none the less a compromise. There were many who still looked with suspicion on the introduction of modern studies as an intrusion, and as a concession merely to relieve the classics of the *non-valeurs*. The modern course started with a handicap in the social approval that had attached for three centuries to the classical studies, in the excellence of the methods that the latter had built up in course of time, and in the attempt to meet two ends, that of practical life [1] and that of university entrance. It was generally accepted, however, that whatever subjects might be taught, the function of the secondary school was to select and train the best intellects of the country; secondary education was to be the privilege of the *élite*. To this end an attempt was also made to approximate the work of the preparatory classes of the secondary schools to that of the elementary. While this approximation was not complete, the boy of parts who came from the elementary school, and especially if he came with a scholarship, started almost level with the boy who came from the preparatory classes.

Status at beginning of the twentieth century. The twentieth century opened in French secondary education with a system that granted equal recognition to the classics and to modern languages and sciences; both were accepted as almost equally valid approaches to French culture and to the universities. The settlement was not, however, conclusive; the reform of 1902 was, after all, a compromise which still left the classicists and modernists arrayed against each other. There were many who regarded any innovation with scepticism, while others did not think that the reform was sufficiently thoroughgoing; the teachers of mathematics felt that their subject was not allotted sufficient time, and the teachers of modern languages were irritated by the imposition of the direct method. There were also some who were of the opinion that the system permitted too early specialization, while others considered that the introduction of options of any kind would involve lower standards. The more serious criticisms were met in time by modifications in the regulations, and the new system of "variety in unity" gradually established itself firmly.

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[1] The decree establishing the reform provided for the organization of a two-year course in the second cycle for students who did not plan to continue to the *baccalauréat*. This provision was never carried out.

As the history of secondary education in France shows, however, the system could not remain quiescent for long. A new rallying point was soon found by those who professed to see a decline in the quality of French language and style. Complaints began to be heard of the frequency of mistakes in spelling, syntax, and language; this *crise du Français* was at once attributed, without justification as the statistics showed, to the reduced emphasis on classical instruction. A serious attack on the situation was postponed by the outbreak of the War in 1914.

The World War and educational reform

New criticisms. Criticism of the whole educational system was only intensified during the duration of the war in France, as in other countries. There were those who urged that the whole system needed revision, that secondary education should be better articulated with elementary, and that the opportunities for secondary and higher education needed to be increased so that talent should be fostered wherever found. An attack was made on the examinations and the cult of diplomas and paper qualifications, which led to cramming and the assimilation of knowledge and information rather than the development of intellectual activity, judgment, and personality. There was, it was charged, no unity of end or purpose in the curriculum, which consisted of a collection of subjects without coördination, and even the so-called practical subjects were bookish and academic. Some would have abandoned the traditional elements and emphasized trade and technical training; others, while retaining general education and culture, wished to see them made more responsive to the requirements of modern life. The claims of the first group were easily dismissed; it was generally recognized that an education that emphasized technical and vocational preparation would be one-sided, would lead to early specialization, and would fail in the chief task of education, the development of men and women. The difficulty confronting the second group was disagreement as to the constituents of a general education — should it be wholly classical, or wholly modern, and what should be the place of the sciences in a liberal education?

Leaving out the larger question of administrative reorganization, it was widely agreed that secondary education should be open to ability irrespective of class, and that it should be general in character instead of specialized. A secondary curriculum, it was held, would include French, classical or modern languages, sciences and mathematics, history, and geography, and aim to impart a liberal education in which would be reconciled the old and the new, the cultural and the utilitarian, the humanities and the sciences. A secondary education of this type would be selective, to train the *élite* drawn from all classes for positions of leadership, for, according to the statement of M. Steeg in presenting the budget of the Ministry of Education, in 1911:

> That an *élite* is necessary it is not for democracy to deny; that an *élite* is necessary not only to maintain the prestige of society, but for the direction of the nation — on this point, I believe, we can come to

an agreement. The object of secondary education is the intellectual training of an *élite* which is destined to become directive and which must be prepared for its social rôle.

The Bérard reform. The whole problem was attacked in 1921 by M. Léon Bérard, soon after his appointment as Minister of Public Instruction in that year. M. Bérard had the advantage of knowing clearly what the function of secondary education should be — it was to provide democracy with a supply of well-trained leaders of vigorous intellect and able to think. He was equally clear that the soundest basis of secondary education is to be found in compulsory classics for all. Accordingly he proposed to abolish the system of 1902, and to put in its place a new system which would require four years of compulsory Latin and two years of compulsory Greek, followed by two optional courses, classical or modern, in the next two years, and finishing with specialization for one year in philosophy or mathematics.

Opposition developed from many sides, and the subject became the chief topic in France for the next few years. One group of educational reformers, *Les Compagnons de l'Université Nouvelle*, who sponsored a thoroughgoing reform of the whole system of French education, with provision for a number of differentiated secondary courses to follow elementary education, criticized the Bérard reform as only a partial installment. The specialists in modern humanities resented the limitation of the term humanities to the classics, and insisted on the provision of optional courses from the start; they argued that the disciplinary and educative values of modern studies were as great as those of the classics. The subject of classical *versus* modern humanities was hotly debated in Parliament, in 1922 and 1923.

Bérard's plea for compulsory classics rested on two arguments; first, the spiritual affinity between French and classical culture, and the intimate influence of the latter on the development of the former; and second, the disciplinary value of a classical education — its cultivation of force and power of reason, of logical habits of thinking, of precision, analysis, reflection, and moral training. The claims of democracy could be met by making secondary education sufficiently accessible to all pupils of ability, irrespective of their social origin; there is no such thing as democratic subject-matter. As to the claims of the modern languages, they had not been taught as humanities, and in any case the reform provided an adequate place both for modern languages and sciences.

> A sound liberal education is that which, side by side with unconscious habits that accompany the process of thought, encourages alertness, sensitiveness of intellect so that from time to time we say to ourselves in the face of a difficulty that may present itself, "I realize that I know little about this subject, that I have not thoroughly grasped the question; for that I must find a remedy."

On May 23, 1923, the President issued a decree by which the new system was to go into effect for the class entering secondary schools (*lycée* or *collège*) in October of that year. It is significant that an important reform of this type should be introduced by a decree signed by the responsible Minister and countersigned by the President, without going through Parliament. Actually it was not until two months after it was decreed that the Chamber of Deputies gave its approval to the reform by a vote of 307 to 216.[1] The reform was, however, short-lived; a change of Ministry within a year after it was decreed involved the withdrawal of M. Bérard from the Ministry of Public Instruction. His successor, M. François Albert, by a decree of August, 1924, repealed the compulsory requirement of Latin and Greek and restored the modern-language option from the beginning of the academic year beginning in October, 1924. Thus the opposition to the principle of compulsory Latin and Greek was successful. It was feared that such compulsion would close the avenue to higher education to too many otherwise promising pupils, and would at the same time direct the *élite* into liberal courses alone at a time when France needed leaders in other walks of life equally essential to her well-being.

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[1] On the Bérard reform see Kandel, I. L., *The Reform of Secondary Education in France.* (New York, 1924.)

The reform of 1925. The decrees and regulations on the new organization of secondary education were issued during 1925. The essential features of the new plan are as follows: All students for the first six years are to follow the same courses in the general subjects; the only difference is that in the first four years there is an option between Latin and modern foreign languages; Greek has been made optional for pupils taking Latin; in the fifth and sixth years the options are classics (A), Latin and modern foreign languages (A^1), and modern foreign languages (B). The other subjects — French language and literature, history, geography, mathematics, and sciences are the same, in order to provide a balanced course for all. The aim in general is to prevent early specialization, and to give a liberal education on both the literary and scientific sides. Only in the last year is opportunity provided for specialization in the *classe de Philosophie* and the *classe de Mathématiques*; that is, after the first part of the *baccalauréat* examination has been passed. The work of the secondary school is crowned by passing, at the end of the seventh year, the second part of the *baccalauréat* which entitles to admission to the universities and the great special institutions at the university level. The time-schedule in effect appears in the table on pages 216, 217.

The restoration of the modern foreign-language option into the course has been accompanied by a new orientation as to the aims and objectives of these studies. Preceding the Bérard reform the criticism of modern foreign-language instruction had been that it was inferior in cultural value to the classics, that it did not afford the same mental training, and that the emphasis on the direct method of teaching had emphasized the spoken language rather than the literary and cultural aspects. The

French Secondary Schools (Boys)

Time-Schedule, June 5, 1925

Classe de	Sixième		Cinquième		Quatrième		Troisième		Seconde			Première		
	A	B	A	B	A	B	A	B	A	A^1	B	A	A^1	B
French	4	7	4	7	3	7	4	7	3	5	5	3	4½	4½
Latin	6	–	6	–	5	–	4	–	4	4	–	4	4	–
Greek	–	–	–	–	3	–	3	–	4	–	–	4	–	–
History	2	2 { 1	2	2 { 1	2–1^a	2 { 1	2–½^a	2–½	2 {^{a} –½	2 {^{a} –½	2 { –½	2 {^{a} –½	2 {^{a} –½	2 { –½
Geography	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Modern Languages	4	5	4	5	3	7	3	7	2	4	8	2	4	8
Mathematics	2	2	2	2	3	3	3	3	4	4	4	4	4	4
Natural Sciences	1	2	1	2	1	1	1	1	–	–	–	–	–	–
Physics and Chemistry	–	–	–	–	–	–	–	–	4	4	4	4½	4½	4½
Art	–	–	–	–	–	–	½	½	½	½	½	½	½	½
Total	20	20	20	20	22	22	22	22	25	25	25	25½	25	25

Classe de	Philosophie	Mathématiques
Philosophy	8½	3
History and Geography	3½	3½
Literary Studies	2	–
Modern Languages	2	2
Physics and Chemistry	3	4½
Natural Sciences	2	2
Mathematics	2[a]	9½[b]
Total	23	24½

In addition, periods are also provided for drawing, physical education, and for study and conferences.

[a] Optional
[b] Including Geometric Drawing

latest reform seeks to place instruction in modern foreign languages on an equality with the classics by emphasizing the importance for cultural and general training; the humanistic aspect of both is indicated in the new terminology — *humanités modernes* are assigned the same status as *humanités classiques.* Hence the study of modern foreign languages is not to be limited to the acquisition of a vocabulary, but to the development of the mind by the use of methods similar to those employed in the teaching of ancient languages.

In order to promote the equivalence between courses still further it was proposed that pupils from both sections, classical and modern, be brought together in the same classes for French language and literature. This somewhat artificial attempt to secure equivalence through juxtaposition of pupils (*l'amalgame*) met with so much opposition from the teachers, who argued that pupils with different backgrounds needed different methods of instruction, that the proposal was withdrawn in 1928.

The French purpose. Throughout the discussions that have centered around the problem of secondary education during the last ten years it is clear that the essential purpose has been a desire to preserve and promote French culture. On both sides, among the classicists and the modernists, there was dissatisfaction with the system introduced in 1902. The chief criticisms were that this system encouraged too early specialization — some pupils received a predominantly literary training, others too great an emphasis on scientific instruction, while another group in attempting to blend the two sides did justice to neither. The latest reform emphasizes unity and balance in education, and, although options are provided in classics or modern languages, the aim of secondary education is the same for all.

Few countries approach the problem of secondary education, in the traditional conception of that term as an education for the training of an intellectual *élite*, with such clarity of aims and objectives as does France. The starting-point is the firm conviction that the predominance of French culture, which France has now enjoyed for nearly three centuries, must be preserved. Deliberately and consciously secondary education is directed to the best possible training for an intellectual *élite.* The purpose of such an education is to be attained by a *culture de l'esprit*, an elusive term to which the English translation, intellectual training, can by no means do justice. It does not imply mere verbal mastery of French or other cultures, or of sciences and mathematics. It means the utilization of these subjects for the attainment of those qualities that are the mark of the educated man. Through *études désintéressées*, general studies, secondary education aims to cultivate judgment, taste, appreciation, and an ability to think clearly and logically. Success is measured not in terms of ability to reproduce knowledge, but in power to use abstract ideas, to see the general in the particular. More concretely expressed the measure of a sound liberal education is ability to speak well and to write well (*bien dire et bien écrire*) as the outward indication of clear thinking. Hence the emphasis that the French more than any others place upon command of their own language. The study of foreign cultures, whether ancient or modern, as of other subjects, is directed to a better appreciation of the mother-tongue. According to the latest *Instructions* on the secondary-school course:

> It is not the function of secondary education to prepare pupils who have a definite profession in mind nor even to point them toward one or other of the great intellectual routes in which the activities of man deploy themselves. It does something more and better; its task is, without preparing for anything specific, to make the pupils apt for everything. It forges in them, with the care and diligence of the artist, conscious of the surprising difficulty of his task, the powerful and delicate tool for their future conquests, that is, a vigorous and fine intellect, ready for all the beautiful adventures of the mind.... At an uncertain age in which tastes, interests, and aptitudes begin to manifest themselves without any surety that

they are still artificial and temporary or real and permanent, the rôle of the teacher is precisely to prevent the pupil from throwing himself wholly on the side of his youthful whims.

Secondary education and democracy. On these aims and ideals there is general unanimity, even though the quarrel between classicists and modernists may continue for some years more. All are agreed that the continuance of the traditions of French culture is based on the foundation built in the secondary schools — the *lycées* and the *collèges*. Here the French are more concerned with quality than with quantity. During and since the War, however, the French themselves have become somewhat disturbed about the validity of this as the only conception of secondary education. The unrest has been brought about by a large number of factors: the large percentage of elimination and mortality in secondary education; the fact that secondary education is still largely the privilege not only of a minority, but of a minority drawn from the well-to-do classes; that the work of the schools is hampered by the presence of pupils who are retained because their parents can afford to keep them in school; and that the country as a whole is not drawing on the talent and ability of all classes. Finally, France is passing through an economic change from an agricultural to an industrialized society, a change which is opening new opportunities for ability which is not trained, and which is bringing with it a realization that leaders must be prepared not only for intellectual but for a great variety of other careers. This unrest has found expression in the movement for the *Ecole Unique*, which is the center of proposals to reorganize the French system of education and to adopt a broader conception of the scope of secondary education.

The principle of the *Ecole Unique*, a common school system, was enunciated during the War by *Les Compagnons de l'Université Nouvelle*, a group of young educators who formed an organization to promote the complete reorganization of the

French educational system. The fundamental idea inherent in their proposals was the organization of a system that would promote the interests of the nation as a whole, that would eliminate class distinctions, that would provide equality of opportunity for all, and that would, as a result, utilize all the resources of talent and ability wherever found. The implication was not a common, identical, or uniform education for all above the elementary stage, but the inauguration of a system in which all branches of education would be properly coördinated and in which pupils would find that education that was best suited to their abilities.

Widespread interest in a common school. The proposals of *Les Compagnons* attracted widespread attention, and since the War have been the chief subject of discussion and debate not only in professional circles, but in lay newspapers and magazines and in Parliament. In the last few years they have become the center of acrimonious political debate. The opponents of the *Ecole Unique* profess to see in it an attempt to establish a uniform, state-controlled system, and an attack on the right of parents to select private (and in the main clerically controlled) schools for their children. This attack is, however, specious, for fundamentally the movement for the *Ecole Unique* is intended to promote the greatest efficiency in national education, first, by bringing all education, some of which is still under the charge of various Ministries, under the supervision of a national Ministry of Education; and secondly, to establish a system of coördinated schools at various levels for the recruiting and training of ability, wherever found, not merely along the traditional intellectual lines but along whatever lines France in her present stage of development may need leaders. The ideas underlying the movement were well summarized by Anatole France, in *La Vie en Fleur*:

> The same education for all, rich and poor. All will attend the primary school. Those among them who show the highest apti-

> tudes will be allowed to have a secondary education, which, without fees, will bring together on the same benches the *élite* of the bourgeois and the *élite* of the proletarian youth. From this *élite* will proceed an *élite* to the higher schools of science and art.

M. Léon Brunschvieg explained the ideas by an analogy:

> It is important that all the children of France should be considered alike as living plants, whose spontaneous growth will be assured by the same methods; only the trunk will be allowed to grow up to a certain height before the branches are permitted to shoot out without the opposition of any artificial obstacle to the expansion of their being, whose innate powers will raise each up to the level designed for it.[1]

In 1924 M. François Albert, Minister of Public Instruction in M. Herriot's Cabinet, appointed a *Commission de l'Ecole Unique* to inquire into the problem; the *Ligue de l'Enseignement* appointed its own Commission; and the problem was discussed in a series of lectures at the *Ecole des Hautes Etudes Sociales*. These are cited as examples, out of many hundreds, of the interest in the subject of the common school. The general trend of the discussions has been in favor of a reorganization of the school system into four levels: (1) a common elementary education (ages six to twelve); (2) a lower secondary level of four years (ages twelve to sixteen); (3) a higher secondary level (ages sixteen to nineteen); and (4) a higher level in universities, technical institutes, and similar centers.

Changes since 1925. Of these tendencies some have already been realized. Since 1925 a common primary education has been adopted for all children up to between the ages of eleven and twelve. Pupils are not required to attend the same school, but whatever school they attend within this period follows the same curriculum, is taught by teachers with the same qualifications, and is inspected by primary-school inspectors. This provision means that the advantages hitherto enjoyed by pupils who attended the *classes élémentaires*, associated with the secondary schools, are now abolished. These classes still continue to charge fees, but the work is not directly preparatory to the secondary schools. All pupils who are candidates for admission to the secondary schools accordingly start on an equal footing. Another contribution to the realization of the *Ecole Unique* has been the institution of a common scholarship examination for candidates who wish to enter the secondary, the higher primary, or the technical schools; not only may candidates hold these scholarships in either one of these schools, but they may, after an exploratory period, transfer them from one to another. The money set aside in the budgets for scholarships has increased considerably in the last few years. Transfer from the higher elementary schools to the upper section of the secondary school proper has been facilitated.

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[1] *Un Ministère de l'Education Nationale*, p. 79. (Paris, 1922.)

Circumstances, rather than principles, have, however, hastened the development of a common school at the second level (ages twelve to sixteen). In an effort to secure retrenchment it was proposed, in 1925–26, to close the smaller secondary schools — usually *collèges* maintained by municipalities and having small enrollments. In order to save these institutions higher elementary or technical schools, or in some cases both, were brought together under the same roof as the *collèges*, and teachers were used, where possible, interchangeably in the two or three types of courses. Since pupils in the higher elementary and technical schools are free scholars, parents of pupils in the secondary sections proper, the *collèges*, protested against the exaction of fees. In 1928 the Government decided to abolish fees in the cosmopolitan schools, a decision which affected about one hundred institutions. Parents of pupils in the *collèges* now protested against the payment of fees in the upper sections, the third level of the proposed *Ecole Unique*, and these also were abolished in 1929. Since these decisions were obviously unfair to parents who continued to pay fees in secondary schools to which higher elementary or secondary schools were not attached, the Government adopted the decision to abolish all fees for secondary education, beginning in 1930 with the lowest class, and advancing progressively year by year until their abolition throughout the secondary schools. The abolition of fees has been accompanied by the requirement of a scholarship standard in the secondary schools, so that pupils who fail to reach it are required either to leave or to pay fees.

The problems of selection and equality. The development of free education at the second level has raised a number of serious problems. The first is that of selection. It is objected that the standards of admission to the various schools at this level are higher for poor children with ability, who are selected by competitive scholarship examinations, than for the children of the rich who are admitted to the *lycées* and *collèges* by entrance examinations. The Commissions already mentioned have advocated the establishment of a Permanent Commission for Selection and Guidance in the Ministry of Education (*Commission Permanente de Sélection et d'Orientation*), which would devise satisfactory methods for assigning pupils to the type of schools that is best suited to the abilities of the pupils. The second problem is that of extending the equality of opportunities. The abolition of tuition fees is only a small contribution to the solution of this problem. Many parents are ignorant of the opportunities already available; others withhold their children from secondary education because they need their help, in work or wages, at the earliest possible opportunity; prolonged education would not merely involve loss of wages but additional expense for books, clothing, and, frequently, board away from home. Children of teachers and wards of the nation (children who lost their fathers in the War) are already provided for in these matters, if they can meet the standards. The only solution is to take the next step implied in the democratization and equalization of opportunities, and that is to extend the system of maintenance grants (*bourses d'entretien*) to all deserving pupils.

The *Ecole Unique* is then, according to a summary of M. Ducos, from the point of view of the individual the right of every human being to acquire the highest and clearest consciousness of the world and of himself of which he is capable; from the point of view of the State it is its duty to provide the individual with the means of attaining this end; it also implies at the same time the duty and right to stimulate and to recruit the *élites*, the duty and the right to prepare them by the most appropriate methods. In other words France is conscious to-day of the need of educating not merely one type of leaders (*élite*) — the intellectual type produced by her traditional secondary education — but a variety of types (*élites*) as demanded by her changing social, industrial, and commercial conditions.

Democratization and the old traditions. The democratization of education in France implies, then, an extension of educational opportunities according to ability. The more advanced education becomes, the more selective it is to be, but along differentiated lines. On one point all the supporters of the reforms are agreed, that there shall be no surrender of quality of education. The traditional characteristics of French culture are to be preserved and promoted. This France feels that she owes to herself, and to the leadership that she has enjoyed for so long in the world of culture. The intellectual *élite* is to be educated to safeguard the claims of general culture; that is, that type of education that arouses a consciousness of the essential problems that confront man as man and as citizen, that stimulates an intellectual interest for all forms of life, that cultivates the habit of going to the facts and from the facts to ideas, that develops an all-round view and a delicate feeling for shades of meanings and a critical judgment that is always ready to seize the manifold aspects and relations of life. On this there is to be no compromise, but the selection and training of the intellectual *élite* is to be paralleled by provisions for the selection and training of *élites* in other walks of life.[1]

In his address to the Higher Council of Public Instruction in January, 1927, M. Herriot, then Minister of Public Instruction, stated:

> Our task, in fact, is constantly to create an *élite*. I, for my part, feel that keenly. At a time when other forces, less noble, seek to establish themselves, the educational system has the glorious privilege of maintaining the prestige of the spirit, the sovereignty and independence of the idea. It has the duty of courageously teaching democracies that no greater danger menaces them than misunderstanding of the rôle of the *élite*, or, in other words, the danger of leveling downward. Our system by examinations and by competitions maintains the most justifiable method of recruiting.... Is it not in the educational system that the republican ideal must be realized first, and thence spread through the whole state?

Preparation of teachers for the new schools. The success of this program depends on the ability of France to maintain the high standards of the leaders in the personnel teaching in the secondary schools, which at present seems to be threatened by the tendency of the best-educated and best-trained men to be attracted into the more lucrative positions open in industry and commerce. The highest qualification for teachers in the secondary school which is required for appointment in the *lycées* is the *agrégation.* The *agrégation* is not a university degree, but a diploma conferred by the Ministry of Education on the basis of a competitive examination. Many of the candidates prepare for this examination in the Higher Normal

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[1] On the *Ecole Unique* the best accounts are to be found in the annual *Rapport fait au Nom de la Commission des Finances chargée d'examiner le Projet de Loi portant Fixation du Budget général*, especially the reports issued since 1924 under the chairmanship of M. Ducos. Summaries of these reports are to be found in the *Revue Universitaire.* See also *L'Université Nouvelle; Projet de Statut Organique de l'Enseignement public instituant l'École Unique* issued by the Comité d'Etude et d'Action *Pour l'Ecole Unique* (Paris, 1927); and *Educational Yearbook, 1928*, of the International Institute of Teachers College, Columbia University (New York, 1929).

School (*Ecole Normale Supérieure*), which is now a part of the University of Paris. Admission to the Higher Normal School is obtained by graduates of secondary schools by competition, and retention is similarly dependent on success in the annual examinations. Other candidates prepare in the regular university courses or privately, but all must hold *Licence d'Enseignement* and the *Diplôme d'Etudes Supérieures*, which are qualifying examinations and require intensive specialization in one or several allied subjects taught in the secondary schools. Since 1924, candidates must have taken courses on secondary education and its history and general organization in France and abroad, as well as courses on the essential studies of the secondary schools; in addition, they must have spent three weeks in observation and practice in a secondary school. The examinations for the *agrégation* are given in eight groups — philosophy, literature, grammar, history and geography, modern foreign languages (English, German, Spanish, Italian, or Arabic), mathematics, physics and chemistry, and natural sciences. Only that number is selected annually that is required to fill vacancies in the *lycées*.

The lowest qualification, which is generally all that is required in the *collèges*, is the *Licence d'Enseignement*, which is obtained after at least two years in a faculty of letters or a faculty of science. For the *Licence d'Enseignement ès Lettres* candidates are required to have one of the certificates offered by the universities in the four following groups of studies: (*A*) *Philosophy:* (*a*) general history of philosophy; (*b*) psychology; (*c*) logic and general philosophy; (*d*) ethics and sociology. (*B*) *Letters:* (*a*) Greek; (*b*) Latin; (*c*) French literature; (*d*) grammar and philology. (*C*) *History:* (*a*) ancient; (*b*) medieval; (*c*) modern and contemporary; (*d*) geography. (*D*) *Modern Languages:* (*a*) classical literature; (*b*) foreign literature; (*c*) philology; (*d*) practical studies. For the *Licence d'Enseignement ès Sciences* candidates must present a certificate in one of the following groups: (*A*) Differential and integral calculus, mechanics, and general physics. (*B*) General physics, general chemistry, mineralogy, or one other subject in the mathematical or physical sciences. (*C*) Zoölogy or general physiology, botany, and geology. At least two years of study are required to obtain certificates in any of these groups.

The French system guarantees a teacher with a thorough command of subject-matter, but it is open to the criticism that while the teachers have relatively profound academic attainments, their professional ability is somewhat vague. Experiments are being made, especially in the field of modern languages, to correct this defect, and the principles may be extended to other fields later. In the classrooms the mastery of subject-matter becomes evident in the freedom and flexibility of the methods of instruction with the older pupils, just as it is equally obvious in the lower sections in the frequency of the lecture methods. As contrasted with the system of preparing secondary teachers in Germany there is greater variety of practice in the French schools. In general, however, the strength of the French system — the academic preparation of the teacher — is at once its weakness, and of this the authorities, in their consideration of methods of reforming the professional preparation, are fully aware.[1]

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[1] See Richard, C., *L'Enseignement en France*, chaps. II and III (Paris, 1925); McMurry, Ruth, *The Training of Modern French Language Teachers for the French Secondary School* (New York, 1929).

CHAPTER VII

IN GERMANY

The eighteenth century

The period of the Enlightenment. The eighteenth century was for Germany, as for France, an age of revolt. Pietism, which had begun as a protest against theological dogmatism and as a movement for religious living, had degenerated in turn into a new doctrine and formalism, which had much in common with English Puritanism. Rationalism, which in its initial stages had been a movement for emancipation from the trammels of tradition and authority in the intellectual field, had ceased to be satisfying to those who felt that an emphasis on cold intellectualism meant the neglect of sentiments and emotions. The movement known as Enlightenment, at once the result and the expansion of rationalism into other fields than philosophy and theology, soon fell under the same criticism as rationalism and was decried, in addition, for its emphasis on utilitarianism. None of these movements contributed in a satisfactory measure to the release of individual capacity; each in turn placed the individual under a new type of control. At the same time German cultural life was dominated by French influences. The French court, French writers and philosophers, and French fashions set the standards, and together crushed any tendency to native self-expression and national realization. Germany was still a collection of small provincial States, each under a petty ruler, and without life and leadership of its own.

From this manifold domination over the life of the individual and the nation there gradually developed a yearning for release — a longing for leadership that would point the way to emancipation and self-realization. Such leadership was not provided either by the schools or by the universities. The *Gymnasium* still continued to exist as a preparatory school to the university, to cultivate Latin grammar and language to the neglect of true literary appreciation, and to devote itself to activities that had little or no significance outside the school. At best the goal was to develop ability to imitate the Latin authors, rather than to seek inspiration in them. The *Realschulen,* when they began to appear, were looked upon with suspicion as too utilitarian and encyclopedic to serve the needs of a genuine education. Little could be expected from the universities, which had scarcely begun to realize the existence of a new world different from that in which they were looked upon to defend theological doctrines. The newly created universities of Halle and Göttingen, although established in a spirit of protest, were slow to awaken to the new opportunities. Finally, the upper classes took their lead from their rulers, of whom Frederick the Great was the typical example, dominated intellectually by French thought and engrossed politically in the economic and territorial aggrandizement of his State.

Influences for reform. The change came gradually in the second half of the eighteenth century, and was destined to inaugurate a new era in German life and thought. This change was the outcome of a feeling of unrest, engendered by the conditions already described. One influence, however, was outstanding, and that was the appearance of Rousseau's *Emile,* in 1762, which stirred German intellectual circles even more profoundly than it did the French. His appeal for more freedom, individuality, and humanity found an answering call in the current yearnings in Germany. His attack on conventional life and culture, his doctrine of the dignity of man and the rightness of nature, his plea for an education free from the trammels of tradition and authority, and giving free play for the development of natural capacities through activity, supplied the rallying points for all who were discontented with artificiality and external domination. True education, it was recognized, comes not from imitation of a dead past and consists not in passive assimilation of a few Latin authors, but from the cultivation of taste, judgment, and understanding in relation to real life.

Neither the narrow education that had come down from the Reformation period, nor the courtly education for the *galant homme*, were broad enough to give the individual that culture that would train him to true humanity. Not the narrow training in Latin grammar and speech, but *Bildung zur Humanität* (Education for Humanity) through free activity of the spiritual powers in philosophy, art, poetry, and religion was declared to be the true goal of a sound education. Approaching the problem of education for humanity from his own interpretation of history, Herder emphasized a social ideal which, starting from the self-realization of the individual through free activity and in accordance with his own genius, seeks the promotion of the welfare of the nation, the race, and of humanity of which the individual is a part. From his own point of view, Kant contributed to the spread of the same ideal with his categorical imperative, "Act as if the maxim of our action were to become by our will a universal law of nature."

The neo-humanistic revival. The new educational aim was clear; the materials for the attainment of this aim were not so obviously to hand. For a time it looked as though Basedow had found a solution in his Philanthropinum, founded at Dessau in 1774, and based on principles enunciated by Rousseau. Basedow's personal characteristics, however, soon alienated his supporters, while the realistic and utilitarian trend in his school failed to satisfy those who were in search for a truly cultural education. German literature had as yet little to offer; the trend against French cultural influences had already been started on its way by Klopstock; dissatisfaction with the deadly grind of the Latin school was general. The direction came not from the schools but from literature.

In 1755 appeared Winckelmann's *Gedanken über die Nachahmung der griechischen Kunstwerke*, which emphasized the "noble simplicity and calm grandeur" of Greek art and its striving for the ideal. In the field of literature, as well as of art, Lessing in his *Laokoon* (1776) and *Hamburgische Dramaturgie* (1767) had rediscovered the true meaning of classical antiquity, not as a source for imitation but for active assimilation and adaptation of its principles as an inspiration for further creative work. In classical antiquity were to be found the true sources of humanism, not the barren and sterile humanism of the schools, but that literature, that art, those social and political institutions, an appreciation of which makes a man a man. The humanism of the Renaissance had degenerated into mere imitation of a round of studies that became constantly narrower as time went on. The New Humanism or Neo-humanism was characterized first by an emphasis on Greek life and antiquities rather than Roman, and secondly by utilizing this material not for purposes of imitation but for spiritual assimilation, for the cultivation of taste, judgment, and understanding, for the derivation of principles and stimulus for creative activity, and for the search for "the good, the true, the beautiful."

Ideals of the movement. This ideal of a return to Hellenism coalesced with the ideals of the dignity of man and natural development, derived from Rousseau. The leaders in the literary revival that was to give German culture a permanent place in the cultures of the world — Herder, Goethe, and Schiller — received their inspiration from both sources. For them the New Humanism meant emancipation from the trammels of tradition and authority, open-mindedness, and tolerance. With them and their age humanity, of which the Greeks furnished a perfect model, became a cult. The pseudo-classical school, the degenerate humanism of the *Gymnasium*, proceeded on the theory that the development of culture had ceased with classical antiquity; those who were associated with the Hellenic revival were fortified by a faith in the perfectibility of man and in growth as the fundamental principle of the education of the individual. The ideal that dominated the movement is succinctly summarized by Herder, who wrote:

> With solemn reverence we ascend to Olympus, and there behold the forms of gods in the likeness of men. The Greeks deified Humanity. Other nations debased the thought of God and made it monstrous; but this one elevated the divine in man to deity.[1]

Here was found an ideal which was to change the character of German secondary education and to serve as a foundation for that patriotic and national education to which Fichte summoned the German people through his *Addresses to the German Nation* (1807–08). The school became "the temple of Hellenism upon earth, whither the youth of all peoples shall be led to acquire for themselves the idea of Humanity. In place of the old *sapiens atque eloquens pietas* stands now *sapiens atque eloquens humanitas*."[2]

Foundation work of Gesner. The foundations for the new movement which was to put an end to the sterility of the secondary schools had already begun to be laid before the ideal was consciously formulated. In 1734 Johannes Matthias Gesner, formerly rector of the Thomasschule at Leipzig, became one of the first professors appointed at the newly created University of Göttingen, and devoted himself primarily to the reform of classical studies in the university and of secondary education in the locality, for which he had an opportunity as inspector of schools in Brunswick. Gesner started with convinced opposition to the tyranny of the Latin schools, which only produced parrots without any critical ability, and yet he recognized the value of both Latin and Greek studies as educational instruments. Latin was in any case essential for the advancement of learning, but he admitted that it was not essential for all, and that other types of schools were necessary to prepare for a variety of professions and arts in the interests of national welfare and progress. Influenced by the principles of Ratke and Comenius, he advocated direct and objective methods of teaching, so that "while talking, the senses are occupied and things and words enter the soul together." Some idea of the value that he attached to the study of the classics and of the methods that he had in mind may be gathered from the following statement, which recalls a similar statement, but referring to the Romans, made by Sturm:

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[1] Learned, W. S. *The Oberlehrer*, p. 33. (Cambridge, Harvard University Press, 1914.) See also Paulsen, *Geschichte des gelehrten Unterrichts*, II, p. 200.

[2] *Ibid.*, p. 33, translated from Paulsen, *op. cit.*, II, p. 200.

> Great was the good fortune of the Greeks from this point of view; the language, in which at that time all scholarly culture was contained, they drank with their mother's milk; the best period, which we devote to the languages, they could at the same time apply to the acquisition of information. This is one of the reasons among others why the Greeks produced more learned men than any other people before or after them.

The study of the classics, implied, however, more than the study of languages; it imparted moral and intellectual training at the same time. "Accordingly whoever reads their writings with understanding, enjoys an intercourse with the greatest and noblest souls that ever were, and derives therefrom naturally, as happens with all conversation, beautiful ideas and impressive words." Although Gesner mentions the disciplinary training from such study, he places the chief value on the cultivation of judgment and taste, through extensive reading and appreciation of the content and form of the classics.

Perhaps the chief contribution of Gesner was the establishment of the *seminarium philologicum*, in 1728, for the training of teachers for secondary schools. In addition to their general studies — mathematics, physics, history, geography, and philosophy, the students of the seminar were specially trained, on the basis of an early work of Gesner's *Institutiones rei scholasticæ* (1715), in the subject-matter of a secondary-school classical course, broadly conceived to include grammar, reading, rhetoric, poetics, and antiquities. Opportunities for practice teaching were afforded in the Göttingen schools. Gesner's influence in the reorganization of classical studies, and in laying the foundations for a system of training teachers out of which a teaching profession was to emerge independent of theology, was profound. That his interests were not limited to the classics was shown in his contribution to the promotion of German literature, as founder and president of the *Deutsche Gesellschaft* at Göttingen.

Work of Ernesti and Wolf. Gesner's efforts found able support in Johann August Ernesti (1707–81), a former colleague of Gesner in Leipzig, who reorganized secondary education in Saxony somewhat in accord with the principles laid down by Gesner. More influential than Ernesti was his pupil, Christian Gottlieb Heyne, who succeeded Gesner at Göttingen, in 1763. Following in Gesner's footsteps, Heyne's contribution lay in an extension of the scope of classical studies to include antiquities, mythology, archæology — everything that would throw light on and give meaning to the literature, art, politics, and life of the ancient world. His emphasis was especially laid on Greek, but in general he held that the study of the classics, while they trained the mind, performed a far higher function in imparting standards of taste and judgment, nobility of feeling, and a sense for the good, the true, and the beautiful.

To teaching he gave a new direction as guidance of the learning process, rather than the hearing of lessons. His influence was not limited, however, to preparing and selecting teachers for the schools and in drafting school ordinances, but in reaching a wider audience from the students of the upper classes who attended the University of Göttingen, and were to become leaders in all walks of life. The leading classical scholars of the next generation and a statesman like Wilhelm von Humboldt were counted among his students.

The last in this list of leaders, on whose work the reform of secondary education was based, was Friedrich August Wolf (1759–1824), a disciple of Heyne. After several years of experience as a teacher, Wolf was called to Halle, in 1782, to take charge of a pedagogical seminar. Not wholly successful in this, Wolf established a philological seminar and succeeded in organizing the study of the classics on a footing independent of theology or law. Here he trained an influential body of teachers not so much through the study of pedagogical principles, with which Wolf felt himself incompetent to deal, but through a detailed training in the subject-matter of which the teacher must be a master; opportunities for practice teaching were provided in the local schools.

The aim of education he summarized briefly as *cultura corporis et animi ducens ad perfectionem humanitatis* (the cultivation of body and mind leading to the perfection of humanity). This was to be attained through a study of the classics, for "no one who knows a little of our studies will believe, that what we acquire for harmonious development of the mind and spirit through historical research into antiquity and familiarity with its languages and immortal works, can be attained to such perfection in any other way." At the same time Wolf agreed with Gesner and Heyne that a classical training was not the best preparation for all, and that other opportunities for education through modern subjects, as in the real schools, should be provided, but even here access to the riches of the classics could be opened through translations.

Perhaps the best summary of the meaning of neo-humanism was that made by J. H. Voss, in 1804:

The secondary schools should cultivate the spirit of man to nobility through purely human sciences and experiences. To this end does the model of perfected culture furnished by the Greeks and the Greek trained Roman contribute. To understand it and feel it with its unbounded knowledge one learns the ancient languages, which, as the keenest and finest expressions of the most living spirit, deserve the devotion of careful industry. The upper school or academy, in carrying on the tradition of human culture, imparts at the same time the special training necessary for life. Proved experience shows that a proper study of the classics affords the clearest sense for truth, the most correct feeling for beauty, the most manysided culture, that a mind trained through Greek ideas is more receptive of necessary sciences and applies them more readily and profitably. All men honored by their own and other countries have acquired the classical spirit either at the source or at second hand. So many happy circumstances as those through which the Greeks developed the highest culture, the bloom of human nobility, may never appear again in combination.... Wherever in modern history the study of the ancients was abandoned, there arose the darkness of barbarism; where it began again, there arose Enlightenment.[1]

Organization under Frederick the Great. It was this spirit and this attitude that determined the reform of secondary education, and its progress throughout the nineteenth century not only in Germany but in England as well. The foundations for the reform began to be laid in Prussia during the reign of Frederick the Great, who sensed the need of putting new life into the secondary schools, and whose views on the place of classics as an instrument for training for contemporary life coincided to some extent with those of the neo-humanists. At the same time he favored the extension of the *Realschulen* for economic reasons, and for training the large number of pupils who were not likely to profit from a classical education. The centralizing tendency of this period was extended to secondary education by the activity of Baron von Zedlitz, as

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[1] Paulsen, *op. cit.*, II, pp. 171 f.

Minister of Justice, who was also given charge of ecclesiastical and school affairs in 1771. Sympathizing with the new movements of thought in education, he had in mind a well-defined system of education which would provide elementary schools, intermediate schools for those who were to become artisans, and secondary schools for scholars, nobles, and officers. Prussia was covered with a network of Latin schools, the majority of which were small and inefficient, and even the larger schools were still devoted to the narrow routine of instruction in Latin and religion.

A cabinet order, issued by Frederick the Great in 1779, urged a thorough reform of these schools. Owing to lack of funds it was not until 1787, under Frederick William II, that the first step in the organization of state control of secondary education was taken. In this year Zedlitz succeeded in securing the appointment of the *Oberschulkollegium* to organize, reform, and supervise the state system of education. The special functions of this Higher School Board, of which Gedike and Meierotto, two of the most progressive secondary-school directors in Berlin, were members, was to examine teachers, to establish a system of teacher preparation, to recommend appointments, and to promote the preparation and use of new textbooks and the best methods of instruction. For the preparation of secondary-school teachers, Trapp, a disciple of Basedow, was placed in charge of a pedagogical seminar at the University of Halle in 1779, to be succeeded after two unsuccessful years by F. A. Wolf; other seminaries were established by Gedike and Meierotto in connection with their own schools in Berlin.

The most important contribution of the *Oberschulkollegium* to the ordered progress of the secondary school was the introduction in 1788, under Wöllner, the successor of Zedlitz, of a school leaving examination, the *Abiturientenprüfung*, conducted in each school by the teachers and a representative of the education authorities. The certificate granted on the results of this examination was to be accepted for admission to the universities, which still continued to conduct their own entrance examinations for students coming from other than public schools. The immediate effect of the regulation of 1788 was to lead to a classification of secondary schools; those schools that were privileged to conduct the leaving examination came to be known as *Gymnasien*; those that did not enjoy this privilege surrendered the attempt to prepare pupils for the universities, gave up or restricted instruction in the ancient languages, and became in many cases real schools or *Bürgerschulen*.

The tendency toward centralization and state control of education became a fact when it was incorporated in the *Allgemeine Landrecht* of 1794, which provided that:

> Schools and universities are state institutions, charged with the instruction of youth in useful information and scientific knowledge. Such institutions may be established only with the knowledge and approval of the State. All public schools and educational institutions are under the supervision of the State and are at all times subject to its examination and inspection.

Education and nationalism after 1806

After Frederick the Great. The good intentions of these laws and regulations were not put into effective practice. The successors of Frederick the Great lacked his force and his administrative ability; education was still dominated largely by church control. It needed a great national disaster to shake Prussia out of the inert and narrow provincialism into which she had sunk after the death of Frederick the Great. The disaster at Jena at the hands of Napoleon, in 1806, and the consequent Treaty of Tilsit in 1807, saved Prussia from the inevitable decline into a petty State with which she was threatened. The defeat and the conditions of the Treaty served as a trumpet call for a new patriotism that resounded throughout Germany. Poets and thinkers alike combined to arouse the whole country to a sense of patriotic duty, to a realization of the past, and to a determination to wipe out the shame of the defeat and to live up to the genius of the German people. Eighteenth-century rationalism and enlightenment had stimulated the development of individualism and cosmopolitanism, doctrines to which leaders like Lessing, Herder, Kant, and Goethe had subscribed. Fichte's *Addresses to the German Nation*, delivered in 1807–08, served as a rallying cry to the new nationalism demanded by the hour, and rooted in a sound system of education that would release the powers of the individual for the service of his country.

The first task undertaken by the crippled State of Prussia was the reconstruction of the administrative, social, and economic organization of the country, carried out by Stein, Scharnhorst, and Gneisenau. In the program of reconstruction it was recognized that education must play its part. The principle of state control had already been enunciated, in 1794; it needed a more definite organization than the *Oberschulkollegium* to make this principle effective. In 1808 a Bureau of Education was created in the Ministry of the Interior; in 1817 the Bureau became a part of the newly created Ministry of Religion, Education, and Public Health. In 1812 the administration of education in cities, and in 1817 and 1825 in provinces and counties, was reorganized.

Work of von Humboldt. It was at this stage that the neo-humanistic movement of the previous generation acquired its real significance and place for the progressive development of the individual and the nation. Neo-humanism, with its return to a study of that period in which, it was thought, the highest example of human development could be found, harmonized with a movement that sought to liberate the potentialities of the individual in the interests of a self-governing community of fellow citizens, patriotic, emancipated, and liberal.

The leader to make the synthesis between the humanity of the old world and the ideals of the new was found in Wilhelm von Humboldt (1763–1835), a scholar, philosopher, and statesman. Thoroughly imbued with the neo-humanistic aims, an ardent enthusiast for classical culture, intimately associated with Schiller and Goethe, with Heyne and Wolf, he was called to take charge of the newly created Bureau of Education, in 1808, and during the short two years of his incumbency was able to give it the direction that it needed. In the field of secondary education he clearly defined the aim which continued to be accepted for the next hundred years. His enthusiasm for classical culture did not blind him to the value of modern studies; accordingly the purpose of the secondary school was to be the promotion of all-round general culture (*Allgemeine Bildung*). To this end he surrounded himself with an advisory council of experts representing all those subjects that, from his point of view, were indispensable for a broad education — philosophy, mathematics, philology, and history.

The first condition for the improvement of the schools was the improvement of the teachers. In 1810 the *examen pro facultate docendi*, the examination for the secondary-school teachers' certificate, was established and definitely recognized teaching as an independent profession and not as a stepping-stone to the ministry. The subjects of the examination were languages, science and mathematics, and history, with ample scope to the candidates to reveal their special interests. The examinations were conducted by special commissions established at the Universities of Berlin, Breslau, and Königsberg. A minimum standard was thus established in insuring the selection of teachers of sound academic learning; professional training and qualifications were to be introduced later in the century.

The revised curriculum. A definite course of study for the secondary schools was not issued at this period, although a draft was prepared by Süvern, a councilor in the Bureau, and a number of experts. Von Humboldt himself was averse to introducing rigid prescriptions, and had in his earlier days exposed the dangers of rigid state centralization in education. Süvern's draft of a curriculum, however, indicates the general tendency of the time and the practical interpretation of schoolmen of the prevailing ideals on all-round education. The four subjects that were allotted the major portion of the time were Latin, Greek, mathematics, and German; history, geography, religious instruction, natural sciences, drawing and writing constituted the remainder of the program; Hebrew, French, and other modern languages were optional. The length of the course was ten years. Not only the curriculum but the aim was clarified. The purpose of a secondary education now became the harmonious development of all the powers, with all-round formal cultivation of intelligence, mastery of languages, considerable attainment in mathematics, and some familiarity with sciences and history.

Although the curriculum drawn up by Süvern was not officially prescribed, it was generally accepted, when published in 1816, as a norm, and was made indirectly effective through the institution of a revised leaving examination (*Abiturientenprüfung*) in 1812. The requirements for this examination placed the chief emphasis on mastery of Greek and Latin; the written test included in addition a German essay and mathematical problems; the oral examination covered all the subjects of the curriculum. As in 1788, only those schools that were privileged to conduct this examination were regarded as genuine secondary schools and given the official title of *Gymnasium.* The retention of entrance examinations conducted by the universities left the door wide open to a large number of students who could not have passed the secondary-school leaving examination. It was not until 1834, however, that the university entrance examination was abolished and the

Abiturientenprüfung made the sole method of access to university study. Schools that were not officially recognized as *Gymnasien* adapted themselves to new conditions and became *Realschulen*, *Bürgerschulen*, or *Progymnasien*.

Thus did the principles of Neo-humanism finally triumph. All-round education and education for humanity were now to take the place of a narrow training in Latin grammar, Latin-speaking, and religious instruction. Real penetration into the spirit of classical culture, and assimilation of its ideal masterpieces in form and content, were to inspire a new creative age which, through the activity and self-culture of the individual, was to furnish the solid foundations of a new nationalism, the expression of the living spirit and genius of the German people, now emancipated from the domination of foreign ideals.

Reaction in politics and education. The liberal spirit and enthusiasm were not destined to be enduring. They came to an end in 1819, the year of the Carlsbad Resolution, which inaugurated a period of repression and close supervision of secondary and higher education and turned a system of state administration, originally intended to standardize and foster education, into a bureaucratic system of control. The spirit of reaction at once prevented the realization of Süvern's project of 1819 for the establishment of a national system of education, for that time one of the most liberal yet planned. In 1817 there had been established an independent Ministry of Religion, Education, and Public Health, which was dominated by Baron von Altenstein from its establishment until his death in 1840. In 1818 the supervision of secondary education was placed in the hands of Johannes Schulze, a student under Wolf at Halle and a disciple of Hegel. Schulze thus combined an enthusiasm for Neo-humanism with a strong faith in the wisdom of the State and of bureaucratic control, a combination which resulted in the substitution of an ideal of general culture to serve the ends of the State for the neo-humanistic ideal of general culture for the development of personality. It was under Schulze, whose influence remained paramount until von Altenstein's death in 1840, that secondary education began to be dominated by state control through regulations and laws that defined every last detail. Liberalism in religion and politics was crushed; teachers and pupils were rigorously controlled and supervised, both in and out of school; the curriculum was strictly defined; independence and initiative in school administration, subject often to the whim and caprice of a locality or a director, were replaced by uniformity and standardization.

The regulations affecting the moral, religious, and political attitudes of teachers and pupils began as early as 1819, when the provincial authorities were required to examine carefully into the moral character of candidates for appointments, and teachers were ordered to insist on obedience and loyalty and to discourage reasoning or discussion on the part of the students. In 1824, teachers were warned not to advance any dangerous or radical doctrines, and to cultivate sentiments of obedience, loyalty, and submission to the monarch and the State, while the teachers themselves were to be more strictly controlled. The private reading of students in Greek, Latin, and German literature was regulated and required to be checked, by orders issued in 1825 and 1829. The restoration of the class teacher during this period, intended primarily to secure better co-ordination of the subjects of the curriculum, was also used as a means of supervising the moral and religious conduct of the students, their attendance at church, and the student groups and organizations. While the teachers were expected to conduct a system of espionage and report on the students, the supervision of teachers was enjoined on their principals with the same intent. The appointment, in 1824, of von Kamptz, director of police in the Ministry of the Interior, as director of the education section in the Ministry of Religion, Education, and Public Health, appointments that he held concurrently until 1832, is an eloquent illustration of the prevailing conditions.

At the same time the qualifications and requirements for appointment as teachers were carefully regulated. In 1823, all candidates were required to pass an examination in history, geography, mathematics, French, and Hebrew, in addition to Greek, Latin, and German; in 1824, philosophy, including logic, metaphysics, history of philosophy, and theology, was added. These requirements were codified in a subsequent regulation, issued in 1831.

The examination as a test of qualifications was supplemented, in 1826, by the requirement of a probationary year (*Probejahr*), during which candidates were to be trained in the art of teaching; in 1833, the *Probejahr* was declared to offer an opportunity to discover the moral and religious character and the political attitudes of the candidates.

Bureaucratic interference with the curriculum. The police authority of the State was not restricted to the control of personal conduct and ideas; the curriculum of the secondary schools was also subjected to bureaucratic interference. Neo-humanist though he was, Schulze succeeded in his régime in gradually eliminating almost all traces of the spirit of Neo-humanism from secondary education. In 1828, the time devoted to Latin was increased at the expense of Greek, and the old emphasis on Latin and on Latin speaking was restored. The schools were, however, still free from the pressure of uniform requirements of a course of study and a time-schedule. New regulations for the leaving examination (*Abiturientenprüfung*) were issued in 1834, and indirectly placed the stress on Latin. Students were required to write essays in Latin and German, to write a composition in Latin, to translate from Greek and French, and to answer some problems in mathematics; in the oral examination they were tested in ten subjects, including introductory philosophy, which had been added a few years earlier on the advice of Hegel. For the first time this leaving or maturity examination (*Reifeprüfung*) was made the sole method by which students could enter the universities, a requirement which virtually gave the *Gymnasium*, the only institution preparing for the examination, a monopoly of secondary education. This step, it must be noted, was taken at a time when demands began to be heard for other types of secondary schools, better adapted to contemporary needs.

The first definite regulation of the course of study and the time-schedule was contained in the rescript of 1837. The length of the course was reduced from ten to nine years. Again the balance was further thrown in the direction of Latin, which was given 86 hours in the nine years, almost one third of the total of 280 hours and more than the number of hours for German, Greek, and French together (76 hours). Unbalanced as it was, this course of study attempted to serve two ends — to retain the classical tradition, and to satisfy the demand for modern subjects without proceeding to the length of promoting the spread of new modern schools with the same privileges as the *Gymnasium*. Greek, Latin, and mathematics absorbed more than half of the time (161 hours); the remainder was divided between French, religion, introduction to philosophy, history and geography, nature study, drawing, writing, and singing.

For some time charges of overloading of the program, with serious consequences for the pupils, had been made, and these came to a head in a serious criticism, *Zum Schutz der Gesundheit in der Schule*, written by Dr. Lorinser, in 1836. The answer of bureaucratic Schulze, contained in the rescript of 1837, was to the effect that the fault lay with the parents for sending physically and intellectually immature boys to the *Gymnasium*, and with the teachers who used bad methods and demanded too much in their own special subjects. The curriculum was reasonable, was calculated to rouse all the intellectual faculties, and to prepare for the universities; if things went wrong, it was not the fault of the authorities, who could only suggest that time should be found for recreation and free occupations. To some extent Schulze's argument was correct; the *Gymnasium* was beginning to be overcrowded with a large number of students who were completely out of place, but who were sent to this institution as the only one through which certain privileges could be obtained. Not only did graduation from the *Gymnasium* give access to the university and certain civil service appointments, but the completion of six years of the course conferred the privilege of one year of military service (*Einjährig-freiwilliger Dienst*) and eligibility to some junior positions in the civil service. This monopoly was attacked, but with only partial success, and it was to be the bone of contention for the rest of the century.

Results of this work. The regulation of the course of study and the time-schedule was the culmination of Schulze's activities; he continued in office until 1858, but his influence declined on the death of his patron, von Altenstein. In many respects Schulze was the right man in the right place; if he was overzealous in the interests of state control and bureaucratic regimentation, he compensated therefor by a genuine enthusiasm for learning and scholarship. He gave Prussia a unified and carefully regulated *Gymnasium*, and provided this school, as well as the struggling *Realschule*, with a corps of teachers who were carefully selected, so far as such selection could be made by means of examinations. If they were imbued in the seminars with high standards of scholarship, rather than with a genuine feeling for their task as teachers, it was by virtue of their scholarship rather than as teachers that they gradually acquired, under the ægis of the State, a position of dignity and a social status that the teacher had rarely ever enjoyed before in Germany. At the same time their scholarship and special interests militated against their effectiveness as teachers, and contributed not a little to aggravate the mischief of an already overcrowded program. They were able to send to the universities students equipped with a fair amount of knowledge, but lacking in adaptability, keenness of judgment, and real enthusiasm for studies.

Schulze's interpretation of *Allgemeine Bildung* as a species of encyclopedism, with an emphasis on Latin, was not shared by leaders of education in other parts of Germany, such as Gottfried Hermann and Friedrich Thiersch, who were inclined to limit the curriculum to the classical languages as the better instruments for formal training of all-round ability than an encyclopedic knowledge of a variety of subjects which leads to overburdening. Under their guidance were organized the curricula of the *Fürstenschulen* of Saxony, and of the Bavarian secondary schools.

The reorganization of secondary education in Prussia did, in fact, completely disregard the developments of the day. The intense intellectual and speculative interest that marked the close of the eighteenth and the beginning of the nineteenth centuries was succeeded by a more concrete and objective interest in economic and political problems. Combined with the development of research in the natural sciences, interest in these problems resulted in a somewhat materialistic trend. In the universities there were gradually developing new interests as, for example, in the sciences, Germanic studies, and comparative philology, which detracted somewhat from the interest in classical philology. Among the middle classes, perhaps influenced by developments in France, a feeling of unrest against authority in religion and politics and against state control began to manifest itself. In education this spirit found expression in resolutions of teachers' organizations in 1848 in favor of a general law of education, an interdenominational elementary school and university training for elementary-school teachers; in secondary education it was proposed to limit the study of ancient languages in favor of Greek, and to devote more attention to content than to writing and speaking; and, beyond this, it was even urged that the mother-tongue, modern foreign languages, and natural sciences deserved more attention than ancient languages.

The Revolution of 1848, and after. These resolutions were overwhelmed in the general reaction that followed the Revolution of 1848. So far as the secondary schools were concerned, opposition had already set in before the Revolution, directed by King Frederick William IV (1840–61) himself. The chief criticism of the King and his followers was leveled against the failure of the *Gymnasium* to develop force of character and correct sentiments. In the Ministry von Altenstein was succeeded by Eichhorn, and the direction of secondary education was taken from Schulze and placed in the hands of Gerd Eilers. Politically both Eichhorn and Eilers were reactionaries, and supporters of the doctrine of the divine right of kings and of absolutism against Parliamentary rule; both represented a conservative and intensely religious tendency. Eilers' methods differed from those of Schulze; instead of proceeding by decrees and regulations, he sought to attain his ends by carefully selecting the university professors and principals of secondary schools. In the universities irreligious philosophical speculation was to be combated by positive Christian influences; in the secondary schools similar influences for the cultivation of correct sentiments and training of the will were to be brought to bear. To the *Realschulen* Eilers was opposed on the ground that they overeducated those who should be content to remain artisans; the chief charge against the *Gymnasien* and the universities was that the more intelligent leaders of the revolutionary and progressive groups were supplied by disappointed candidates for state employment.

The full effects of the reaction were not felt until after the

Revolution. In 1850, Karl von Raumer was appointed Minister, and Ludwig Wiese took charge of secondary education from 1852 to 1875. The philosophy that determined Wiese's policy may be expressed in his own words:

> To me the Reformation idea of true intellectual training seemed to be the simple and highest norm: the union of science with the life of Christian faith. Therein the German *Gymnasium* had its origin. In the return thereto I saw the salvation of youth and our people. A humanistic culture with genuine deep roots I regarded as valueless and impotent.

This principle brought him nearer to the views of Thiersch and his Bavarian reform. Wiese aimed at a simplification of the course of study and concentration around Latin. The promotion of a Christian spirit in the schools he effected by facilitating the appointment of students of theology as teachers in the *Gymnasien*, and at the same time by encouraging candidates for the teaching profession to take courses in theology while at the universities.

By decrees, issued in 1856, the time for sciences was reduced; the requirements in Latin and Greek remained unchanged; German lost two hours to religion; the time for French was increased; and introduction to philosophy was dropped. The chief subjects became Latin, Greek, mathematics, and religion. The revised regulations for the leaving examination tended to subordinate still further the place of German, French, and sciences. The general political and social import of the new regulations was confirmed by the widespread faith in the disciplinary value of what had come to be called philology, expressed in such statements as that "the two lines of the Latin distich conceal a store of magic powers with which any one may conjure who learns to put the parts together for himself." Despite the breadth of new examination regulations for teachers, issued in 1866, there was a return to the intensive and detailed study of the subtleties of grammar and style and the latest contributions of etymological research were introduced into the classroom; a whole period would be devoted to the critical exposition and dissection of a sentence of Thucydides, or of two or three lines of Sophocles. Such pressure brought other evils in their train, such as the use of translations, which were not conducive to the upbuilding of character.

Demand for differentiation and equivalence. In the meantime, another aspect of secondary education began to press for attention. With the economic development of Prussia, the middle classes had gradually begun to assert their influence; they were in fact the centers of the liberal movements in the first half of the nineteenth century. This period also saw the beginnings of a new scientific movement, more especially of the applied sciences. In the reorganization of the *Gymnasium* the special needs of the middle classes who looked to careers in commerce and industry were neglected, and the significance of the sciences was ignored. The gradual acquisition of a monopolistic status by the *Gymnasium* as the only institution conferring the right of admission to higher studies, to important civil-service positions, and, since 1814, to the privilege of one-year military service, the *Einjährig-freiwilliger Dienst,* not only tended to depress the status of the older Latin schools which were not equipped to give the full *Gymnasium* course, but crushed any attempt to develop other secondary institutions better adapted to the needs of those not intending to proceed to the universities. None the less, many such Latin schools were converted into higher *Bürgerschulen* offering a variety of courses, generally without Latin but with modern languages and sciences.

The central administrative authority, although it recognized the development of such schools as essential, especially for pupils for whom the *Gymnasium* was unsuited, refrained from organizing them and held that the matter was a concern of the cities. Guidance was lacking; uncertainty prevailed both as to aims and means. The aims underlying the *Realschule*, established in the previous century by Hecker, were considered unsatisfactory; what was desired was not a glorified industrial school, but a modern school giving a general cultural preparation for higher middle-class callings, and conferring the same rights and privileges as the *Gymnasium*. Many schools retained Latin, partly because it was required for certain civil-service appointments, and partly because of its place in the traditional conception of culture. At the same time opinions began to be heard against the retention of Latin, and it was even argued that the modern world had more to teach than the ancient.

The Ministry, though lukewarm and discouraging, issued a regulation, in 1832, on a leaving examination from the higher *Bürgerschule* or *Realschule* in the following subjects — Latin, German, French (or any other modern foreign language), history and geography, mathematics and science. The one-year military privilege and admission to some civil-service appointments were granted on the basis of success, but state aid for such schools continued to be withheld. During the reactionary period preceding and following the Revolution of 1848, the modern schools were regarded with suspicion by the authorities, such as Eilers, who saw in them centers of materialism, irreligion, and revolutionary tendencies. The "philologists" or advocates of the classical tradition contrasted these schools as utilitarian educational department stores (*Nützlichkeitskramschulen*) with the idealistic *Gymnasium*, and relegated to them the non-academic student, unfit for the advanced studies of a university.

Recognition of Realschulen. The turning-point in the development of secondary education in Prussia (and very soon in all Germany) came in 1859 when the Minister, Von Bethmann Hollweg, officially recognized the place and significance of the *Realschule* in the economic and social organization of the day.

For the first time these schools were organized, articulated, and placed under the supervision of the same local authority that had charge of the *Gymnasien* — the Provincial School Board. The schools were distinguished into two types: *Realschulen erster Ordnung*, giving a nine-year course with religion, German, Latin, French, English, history and geography, and mathematics and science, and governed by a leaving examination; and *Realschulen zweiter Ordnung*, with a shorter course and without Latin. The schools of the first order led up to the one-year military privilege, and admission to some civil-service appointments, but the universities continued to be closed to their graduates. They were considered as serving a definite social function and as imparting general culture, rather than specific technical or vocational training; to this extent they were coordinate with the *Gymnasium*. The retention of Latin was justified on the grounds that it served as a connecting link between ancient and modern culture, that it furnished an essential foundation for the study of grammar in any language and a logical training, and that it was essential for obtaining certain privileges intended for the educated man.

By many of the stalwarts of the opposing school the regulation of 1859 was considered an unwise compromise, rendered inevitable by contemporary conditions; at least the retention of Latin conferred respectability on the schools and there was to be no encroachment on university privileges. In practice the *Realgymnasium*, as the *Realschule erster Ordnung* began to be called in 1882, differed in its curriculum from the *Gymnasium* only by the substitution of English for Greek; the teachers for both schools were selected and prepared in the same way. The slight difference between the two types of schools continued to be the basis of acrimonious discussion for several decades. The cities supported the *Realgymnasium*; the philologists, that is those teaching in the *Gymnasium*, its graduates, and the universities, grew more bitter in their opposition. The chief arguments of the latter were based partly on tradition, partly on the principle of the formal discipline conferred by the study of the ancient languages; subconsciously, no doubt, they were animated by fear of the encroachment of new competitors for the privileges so long reserved for them, and still attracting a large number of students intellectually unfitted for prolonged study of the classics. They failed to realize either the changed social conditions, or the fact that classical studies would have gained if the *Gymnasium* had been relieved of students whose ulterior motive was the acquisition of the privileges.

The supporters of the *Realgymnasium* gained a partial victory in 1870, when its graduates were admitted to the universities with the limited privilege of studying mathematics, sciences, or modern languages, and the right to qualify for teaching positions in these subjects in secondary schools. In 1882 the compromise school was given the official name of *Realgymnasium*, and a new course of study and time-schedule tended still further to reduce the difference between it and the *Gymnasium*, especially by the assignment of more time to Latin in the one and to mathematics, science, history and geography, and French in the other. The *Realgymnasium* continued to increase in number both of schools and students.

A new claimant for recognition. No sooner was a partial settlement secured in the conflict between the claims of the *Realgymnasium* and the *Gymnasium* than a new contestant for recognition and privileges entered. The *Realschule zweiter Ordnung*, which had been left in an anomalous position in 1859, at first began to lose in popularity. Gradually, however, and especially in view of the changes in the social and economic organization following the Franco-Prussian War and the establishment of the German Empire, the situation of this type of school also began to alter. The number of students increased, and the length of the course in some of these schools was extended to nine years. In 1878 these schools were transferred to the supervision of the Ministry of Education, and in the following years graduates of the nine-year course were granted the privilege of admission to the technical high schools, with subsequent eligibility for appointment as state architects. The one-year military privilege was granted on the completion of six years of the Latinless courses, either in a six-year school (*Realschule*) or in a nine-year school (*Oberrealschule*).

It was now urged that a general cultural training was possible without Latin or Greek; some even went beyond this and maintained that for certain advanced studies, such as mathematics and sciences, the *Realschulen* gave a better preparation than the other types. This new threat of invasion into the ranks of the privileged classes was violently attacked, partly on the plea that a cultural training without the classics was impossible, partly again on the plea of formal discipline of the traditional subjects, and partly on the ground that those professions which might now be open to candidates without Latin or Greek would lose their status as compared with those that continued to be based on a classical culture.

Unrest and agitation. This period of agitation saw the rise of a number of societies and educational magazines to support the varying points of view. A society and journal were established to conduct a campaign in favor of the Latinless schools, and especially against the *Realgymnasium* as an unnecessary compromise. This movement received the support of those in favor of the *Gymnasium*, who were inspired by the hope that the new type of secondary school would not compete for privileges. In 1880, under the leadership of Friedrich Lange, the *Verein für Schulreform* was launched with a plea for an institution with a common foundation (*Einheitsschule*) of six years, leading up to differentiated courses in the last three years; the course would begin with French or English as the first foreign language, while Latin and Greek would begin later. In 1889, the *Deutsche Einheitsschulverein* was organized by supporters both of the

Gymnasium and of modern studies, who aimed at a better adaptation of the *Gymnasium* to modern needs; less time would be given to Latin writing and grammar, and more attention would be devoted to German, English, and drawing. In either case it was the *Realgymnasium* that was the center of attack. In 1890, the advocates of the traditional *Gymnasium* organized the *Gymnasialverein*, with *Das humanistische Gymnasium* as their organ.

The conflict might have continued indefinitely had not the Minister, Von Gossler, probably inspired by the Kaiser Wilhem II, who had succeeded to the throne in 1888, decided to call a conference to be held in December, 1890. In 1889, the Kaiser had already indicated in a Cabinet Order his dissatisfaction with the schools, and his intention of "making use of the schools in their separate grades for combating socialistic and communistic ideas," and to promote "a sound comprehension of both civic and social relations by cherishing reverence for God and love for the Fatherland" [1] through improving instruction in religion and history. Both in this Order and in a subsequent one for the reorganization of the secondary education of cadets, issued early in 1890, the Kaiser urged that the course of study be carefully investigated and useless information be eliminated, and that overburdening be avoided by reducing the emphasis on memory work.

The Conference of 1890. The conference called for December, 1890, was avowedly to give representatives of the different points of view an opportunity to consider the whole problem of secondary education. Actually, when the list of members invited to the conference was published, it appeared that it was virtually packed, as out of the forty-four members twenty-seven were protagonists of the *Gymnasium*. It was clearly the intention of the authorities to crush the *Realgymnasium* out of existence, to confirm the *Gymnasium* in enjoyment of a monopoly of privileges, and to encourage the development of Latinless schools. The complacency of the members was, however, shaken by the opening address which was delivered by the Kaiser. He urged more attention to school hygiene and the health of the students, a reduction in the number of subjects of study, a diminution of the burden of work and of examinations, and improvement in methods of teaching. He based his views on his own experience as a student at the Cassel *Gymnasium*, where he saw his fellow students suffering under a burden of twelve or more hours of work each day, and where eighteen out of twenty-one students wore spectacles. "Men are not to look at the world through spectacles," he said, "but with their own eyes, and are to find pleasure in that which they have before them, their native land, and its institutions." The fact was that the schools were steeped in tradition and not developing leaders for the new German Empire. The fault lay with the philologists who, in the enjoyment of vested interests, emphasized learning and knowledge and neglected the formation of character and the needs of practical life. Continuing, the Kaiser asserted that:

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[1] Quotations here and in the following pages are taken from the *Report of the Commissioner of Education for 1889–90*, I, pp. 344 ff.

> The national basis is lacking. We must take German as the foundation for the *Gymnasium*; we ought to educate national young Germans and not young Greeks and Romans. We must depart entirely from the basis that has existed for centuries — from the old monastic education of the Middle Ages, where the standard was Latin with a little Greek added. That is no longer the standard; we must make German the standard. The German exercise must be the central point about which all turns.

National sentiment must be promoted, he asserted, through history, geography, and traditions. The *Gymnasium* with its privileges had turned out an excess of educated men, of whom those who could not fine employment, the *Hungerkandidaten*, the educated proletariat, became a menace to the country.

To the *Realgymnasium*, as a half and half institution giving a half and half education, he was opposed. In general the principle must be surrendered that knowledge and not life is alone important; "the youth must be prepared for the practical life of to-day." Finally, he emphasized the importance of care for the physical well-being of the student body; "I am looking for soldiers; we wish to have a robust generation, who can serve the Fatherland also as intellectual leaders and as officials."

The resolutions of the conference reflected the views of the Kaiser. It was recommended that the Latin essay be abolished; that the number of hours in general be reduced; that the burden of classical studies be diminished by less emphasis on grammar and more on the reading of literature; that English be introduced, either as an option or as a requirement; that more time be given to drawing; that greater emphasis be placed on the study of German language and literature; and that more detailed attention be devoted to the study of recent national history. It was proposed that the *Realgymnasium* be abandoned, and that the *Gymnasium* and Latinless school be promoted, the graduates of the latter to be eligible for admission to technical schools and to universities for the study of mathematics and sciences. The suggestion of an institution with a common foundation was rejected. The resolutions were approved by the Kaiser, and a committee was appointed to draft new courses of study.

The reform of 1892. The regulations containing the new time-schedules and courses of study were issued early in 1892. They had been preceded two years earlier by an increase in the preparation of secondary-school teachers, who were now required to spend a *Seminarjahr* in addition to the *Probejahr*, or two years in professional training instead of one, after passing the state examination. The regulations of 1892 reaffirmed *Allgemeine Bildung* or general culture as the aim of secondary education. In general they carried out the spirit of the resolutions. The *Gymnasium* was of course retained, and the *Oberrealschule* was officially blessed. There was one surprising change; the *Realgymnasium*, which had been condemned by the Kaiser and the conference, was retained, but with such modifications as were certain to render it unpopular.

In the *Gymnasium* the time for Latin and Greek was again reduced; the Latin essay was abolished; German received additional emphasis, and was not only made the center of the curriculum, but students obtaining poor marks in this subject in the examination were not allowed to compensate for them by good marks in other subjects; more time was given to recent history, which with religion received especial emphasis on account of their significance for ethical character. So far as possible time was saved by following the Kaiser's injunction to discard whatever had outlived its usefulness or failed to meet actual needs of the day. For the first time the new courses of study contained a detailed statement of the amount and content of the work to be done in each class, with definite assignments and prescribed textbooks. This was not only in contrast to earlier practices, but in conflict with discussions of the place of freedom and spontaneity by the conference.

The new regulations created or recognized the six-year *Realschule*, the *Progymnasium* and the *Realprogymnasium*, each giving the first six years of the nine-year course of the corresponding school. The one-year military privilege was granted to all students who passed a leaving examination at the close of six years' study in any secondary school. Although the conference had declared itself opposed to the school with a common foundation (*Einheitsschule*), the new reform schools of this type, that is, those following the Altona plan, begun in 1878, of a common foundation for the *Realgymnasium* and *Realschule*, and the Frankfort plan, begun in 1890, of a common foundation for all three types, were permitted to continue and actually increased in numbers.

The reform of 1901. The reform of 1892 failed to settle the problem of secondary education, or to satisfy any but the *Realschule* supporters. The *Gymnasium* and *Realgymnasium* were approximated more nearly to the new type, and to some extent lost their peculiar characteristics.

A new conflict now broke out; the supporters of the *Oberrealschule* now entered on a campaign for more privileges, especially for recognition of complete equivalence with the *Gymnasium.* Another conference was called in 1900, at which not only the three types of schools were represented but representatives of the various professions were included. On the whole the atmosphere was clearer, and greater open-mindedness prevailed than at the previous conference. The supporters of the *Gymnasium* were now ready to make concessions, in order to save the traditional culture for which they stood. The conference was, in fact, almost unanimous in accepting the principle of equivalence.

By a decree of November 26, 1900, all schools were declared to be of the same value for general culture, but while all students now acquired the same right of admission to the universities, only graduates of the *Gymnasium* could enter any faculty without further supplementary examinations. Now that this principle was accepted, the special character of each type was strengthened. The leaving examination for the one-year military privilege was dropped. The schools with a common foundation were continued, but the acceptance of equivalence somewhat curtailed their development. In 1901, new courses of study were issued. The aim now was to link the old and new cultures, because culture is continuous. Education was to be developed to meet modern needs and to promote the ends of German national life. All types of schools were to be general in character and self-contained, without being preparatory or vocational. The aim of each type was to promote general culture, but each in its own way contributing to the whole of national culture. Unity was to be assured as far as possible through common elements and common subjects, but mainly through uniformity of a spirit. Character and intellectual training were to be regarded as more important than emphasis on knowledge and subjects. The spirit of patriotism was to be inculcated through songs, school celebrations, German language and literature, and history and religion. In discipline, greater freedom and better relations between teachers and pupils were urged, but without endangering the qualities of obedience and loyalty. The number of weekly hours were increased; Latin was restored to its position in the *Gymnasium* and *Realgymnasium.* The peculiar characteristics of the *Gymnasium* were to be expressed through the emphasis on Greek and Latin; of the *Realgymnasium* through Latin and modern foreign languages; of the *Oberrealschule* through modern languages, mathematics, and natural sciences. In all schools German, history, and religion were to receive equal attention. Each of the nine-year types of schools was paralleled by a six-year type — the *Gymnasium* by the *Progymnasium,* the *Realgymnasium* by the *Realprogymnasium,* the *Oberrealschule* by the *Realschule* — and the first six years in all schools constituted a unit.[1]

The reform, because it was a compromise, did not please all groups. Particularly active was the opposition of those who objected to the predominant place still assigned to the classics. Paulsen drew attention to the impossibility of a classical revival under the conditions of modern life, and was frank in his statements of the failure of the schools to impart humanistic culture, which was their supposed aim. Criticisms developed from other angles. Germany's increasing prosperity, her undoubted success in the industrial and technical fields, her growing prominence in international affairs, and the slow but marked rise of a pragmatic philosophy of education led to demands for the modernization of the school system, in which the strongly nationalistic elements joined. There were those who demanded a modern education to prepare for modern life in an industrial age; there were others who urged a strong emphasis on German life and culture, even to the exclusion of modern foreign languages; others again pressed for the establishment of a common school system and the postponement of the age of beginning secondary education.

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[1] A detailed account of the history of Germany secondary education will be found in Paulsen, F., *Die Geschichte des gelehrten Unterrichts,* II (Leipzig, 1921). See also Paulsen, F., *German Education* (New York, 1912); Learned, W. S., *The Oberlehrer* (Cambridge, 1914); Russell, J. E., *German Higher Schools* (New York, 1913); Kandel, I. L., *The Classics in England, France, and Germany,* Part III of the *Classical Investigation,* pp. 135 ff. (Princeton, 1925); and Sadler, M. E., *The Unrest in Secondary Education in Germany and Elsewhere,* in Board of Education, England, *Special Reports,* IX, pp. 1 ff. (London, 1902).

The War and the secondary school

Nationalistic agitation intensified. The outbreak of the World War only served to intensify the nationalistic agitation against the study of ancient and even modern foreign languages and culture. German should be made the chief and central subject of a secondary education emphasizing a knowledge of the German people, and founded on the ideal of German nationalism. Classical training had failed to give an adequate preparation for life, and now must give way to studies that function in life. German progress since the establishment of the Empire had been due not to the traditional linguistic training of the secondary schools, but to the excellence of the provisions for industrial and technical training. The attack from this side was led by the *Deutsche Germanistenverband*, and the *Verband deutscher Geschichtslehrer.*

The classicists, on their side, justified the retention of the classics on disciplinary grounds and for their cultural value, for the three pillars on which German culture rested and must continue to be based were *Deutschtum*, *Griechentum*, and *Christentum.* The *Gymnasium* must continue as the bulwark against the encroaching materialism of modern times, and the seductive success of the technical sciences. The great tasks of the future could be met only by a union of idealism and humanism. *Das Volk der Dichter und Denker ist das Volk der Soldaten.* The group was ready to admit the need of internal reform and a reduction of the emphasis on grammatical and philological instruction, in order that more time might be provided for more extensive reading that would bring out the historical, linguistic, and cultural relations between the classics and German.

The Einheitsschule. These discussions, however, affected only the internal organization of the secondary schools, without entering more deeply into questions of more radical reorganization. The chief preoccupation was with educational values within a limited range of subjects. Much more radical were the proposals of another group for the complete reorganization of the whole educational system and the adoption of the principles of the *Einheitsschule* or common-school system. This idea was not the same as the demand for the *Einheitsschule* that had been put forward in the eighties and had looked for a common foundation in secondary education, but a demand for a common education for all up to the age of twelve and the organization of a variety of secondary-school courses for all. The agitation for reform along these lines began during the War, but the only contribution to the extension of educational opportunities that was made at this time was the admission of gifted pupils by intelligence tests from the elementary schools for advancement to a secondary school. To this problem the extensive discussions of the Federal Educational Conference (*Reichsschulkonferenz*) of 1920 were devoted.

A great opportunity was lost, during the constitutional convention at Weimar, of giving practical effect to this movement. The opposition was, however, too strong. Those entrenched in the secondary schools and universities were opposed to a reform which would have meant a reduction of the length of secondary education from nine to six years and which, according to the opponents, would have resulted in a lowering of standards and the cult of mediocrity. No doubt the cost of such a reform under the uncertain financial situation following the War played a part in its rejection. Thuringia alone of the larger States organized her school system along the lines of the *Einheitsschule*, in 1922, but a shift of political power from Left to Right led to a repeal of the reform before it had a chance of being realized. One or two of the independent City-States, as Lübeck and Bremen, have adopted systems more or less along the lines of the common-school system. To all intents and purposes the movement for the *Einheitsschule* has become a dead issue with the gradual swing of political dominance toward the Right, and has even ceased to be a subject of discussion in the educational press. The only important consequence of the demands for the democratization of the school system has been an increase of educational opportunities for gifted but poor boys and girls by the institution of a system of scholarships carrying free tuition, and the adoption of scales of tuition fees based on family income and the size of families.

Post-war reforms. To some extent the system of education has been changed. The Constitution provided that all children should receive a common education for the first four years in a common school, and that the school preparatory to the secondary schools should be abolished. Following the constitutional provision the Federal Government, in 1920, passed a law establishing the *Grundschule* or foundation school, giving a common elementary education to all irrespective of class distinctions. The purpose of the foundation school, as of the abolition of the preparatory school (*Vorschule*), is to give German children, at least for the first four years of their education, a common fund of ideas as the basis of national solidarity. The establishment of the *Grundschule* had the effect of postponing the beginning of secondary education to the age of ten instead of nine, and thus of extending the total length of education to thirteen instead of twelve years. Since this extension involved an additional year's expense on parents sending their children to the secondary schools for the whole course, serious protests were made against the requirement of four years of attendance in the *Grundschule*. As a result, permission has been granted to allow bright pupils to complete the course of this school in three instead of four years.

On completing this course some, the majority of the pupils, continue in the elementary school for four years more; a small number pass on to the *Mittelschule*, which gives a combination of general and prevocational training and which may, by some modifications in the program, give a modern secondary-school course in localities that are not well provided with secondary schools; the remainder, those whose parents can bear the cost and those who show ability, advance to one of the secondary schools, boys to boys' schools and girls to schools separately organized for them. About thirty per cent of the pupils in the secondary schools, the distribution varying largely in different parts of the country, enjoy free tuition, while another small percentage is admitted on payment of reduced fees.

Rising on the foundation of the *Grundschule* there have been retained the three pre-war types of secondary schools — the *Gymnasium*, the *Realgymnasium*, and the *Oberrealschule*, and their six-year counterparts. A new nine-year type has been created since the War in response to the demands for a school in which the emphasis would be placed on German subjects and German culture. It was intended by the proponents of this type that foreign languages should be excluded. The immediate response of the universities was a statement that graduates of such a course would not be admitted to the universities as matriculated students; a proposed compromise to include one foreign language was also rejected. The new school has accordingly been organized with two foreign languages to which, however, less time is given than in the other types; more time is devoted to German language and literature, and history and geography than in the other types. The new type is called the *Deutsche Oberschule.* A fifth type of organization is recognized in the *Reformrealgymnasium*, in which a modern foreign language is fundamental and Latin is postponed until the sixth year.

New plans in teacher training. There still remained the problem of providing secondary-school facilities in the rural areas. A simple solution was found for this problem as a result of the reform of the system of preparing elementary-school teachers. The Constitution provided that such teachers should receive their preliminary education in a secondary school, leading up to the graduation certificate that entitled to admission to the universities. The professional preparation has been placed on university level in institutions variously organized in different States; in Prussia, elementary-school teachers are prepared in Pedagogical Academies, giving a two-year course entirely independent of the universities; in Saxony and other States, the Pedagogical Institutes are affiliated with the universities and give a three-year course; in Hamburg the teachers are prepared in a three-year course in the University of Hamburg.[1]

This reform involved the abolition of the old normal schools and left the buildings available for other purposes. They have been used for secondary schools, and, since the majority are located in the smaller towns, have brought secondary education facilities nearer to the rural population. The new schools are intended for gifted pupils who have completed the seventh year of the elementary school; that is, have reached the age of thirteen. The course is six years in length, and prepares students for the secondary-school leaving examination (*Abiturientenprüfung*). The *Aufbauschule*, as the new type is called, may be organized with a program of studies similar to that of the *Oberrealschule*, or that of the *Deutsche Oberschule*. The *Aufbauschule* has been recognized provisionally by the universities, and has already made such progress in popular esteem that it is being established in the larger cities as well.

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[1] See *Educational Yearbook*, 1927, of the International Institute of Teachers College, Columbia University, pp. 521 ff., and Alexander, T., *Training of Elementary Teachers in Germany* (New York, 1928).

The accompanying table presents a comparative statement of the subjects taught in each type of school, and the time allotted to them throughout the course, the duration being nine years in all but the *Aufbauschule*, where it is six years in length. Additional hours are provided in each school for gymnastics,

TIME DISTRIBUTION IN GERMAN SECONDARY SCHOOLS

SUBJECTS	Gymnasium	Realgymnasium	Reformreal-gymnasium	Oberrealschule	Deutsche Oberschule	Aufbauschule (Deutsche Ober-schule Type)	Aufbauschule (Oberrealschule Type)
Religion.......	18	18	18	18	18	12	12
German.......	31	31	35	37	44	28	24
Latin.........	53	41	16	—	—	—	—
Greek.........	36	—	—	—	—	—	—
1st Modern Language....	15	27[24][a]	44[41][a]	40	46[43][b]	31[27][b]	30[28][c]
2d Modern Language....	—	20[23][a]	23[26][a]	22	13[16][b]	13[17][b]	15[17][c]
History (Civics).....	19	20	22	22	25	21	18
Geography.....	12	13	13	14	18	12	9
Mathematics...	33	36	37	43	37	26	32
Natural Science......	18	25	23	35	30	27	30
Drawing.......	14	18	18	18	18	12	12
Music.........	4	4	4	4	4	—	—
Total...	253	253	253	253	253	182	182

[a] The figures in brackets apply when English is the first modern language.
[b] The figures in brackets apply when the second foreign language is Latin or French.
[c] The figures in brackets apply when the second foreign language is French.

play, and music, and in the upper sections for free activity groups (*Freie Arbeitsgemeinschaften*).

The new spirit in education. Liberal education in the new organization, which is that of Prussia in detail and of the rest of Germany in general, is thus still defined in terms of foreign languages, together with the vernacular, history and geography, science and mathematics. Except that these subjects are regarded as the prerequisites for academic and professional study in the universities, there has been no compromise with vocational or technical training. The study of these subjects is considered to be the essential for a broad general education, but, if there has been practically no change in the concept of culture, there has been an important change in the organization of the subjects for national and individual ends. One of the most serious problems confronting the German people in their post-war reorganization has been to devise means for the promotion of education that would develop a new sense of social solidarity and loyalty to the republican form of government, to take the place of the bonds of loyalty that had been forged by the monarchy and devotion to the political ends that it had set up. The obvious solution, the adoption of the *Einheitsschule*, was rejected as an organization; indeed, attempts have been made to define this as a spiritual need for common education rather than an institutional necessity. Since the organization has remained virtually unchanged, efforts to promote national cultural solidarity have been made in other directions.

The first of these was the adoption of the pedagogical principle of *Heimatkunde*, or knowledge of the environment as a common basis for curriculum-making in the elementary and, so far as it can be carried, in the secondary schools. The important difference between the two educational levels lies in the fact that the interpretation of the environment in the secondary schools would be enriched and broadened by reference to a greater range of factors, national and foreign, that have gone into the making of German culture. The second direction has been the adoption of a more clearly defined national purpose, which with a somewhat different motif had been urged by the Kaiser since the Conference of 1889. The new end to be promoted is *Deutschtum*, German nationalism, German culture — everything that has made and continues to give meaning to German civilization. This does not mean that German secondary education is becoming nationalistic, but it does mean that national values must be taken as terms of reference in building up the content of the school programs.

Change in administrative methods. To this end the change in the spirit of German educational administration has contributed. Rigid prescription of curricula and courses of study has been replaced by the publication by the Ministries of Education of suggestions (*Richtlinien*) to be filled out by the faculties of each school in the light of local conditions. According to this theory, the specialist teachers of the various subjects must justify every part of the content that they recommend on the basis of its potential contribution to a better understanding and appreciation of German culture. In a sense this theory recalls the spirit underlying the neo-humanistic movement. This tendency has affected not only the organization of the ancient languages, but has introduced a change of emphasis in the teaching of modern languages, in which chief stress is being placed on the study of foreign cultures and institutions and their relations to German culture and institutions, rather than on the acquisition of a mastery of the spoken language. Following this theory the programs have been divided into core and concentration subjects. The core subjects are those that transmit German culture and are the constants in all types of schools; they are religion, German, history and civics, and geography. To these subjects the others are expected to contribute enrichment as well as to cultivate special and individual interests. The significance of the reform lies in the attempt to meet the criticisms of the old system that it cultivated specialists, and failed to secure any coördination between the various subjects of each program. The old aim of *Allgemeine Bildung*, in which equal attainments were expected in all subjects, now gives way to *Bildung zum Deutschtum.* The differentials in each program are intended to be treated as different methods of approach to an appreciation of national life.

The new Youth Movement, and its significance. One of the most serious criticisms of the old system was its strong emphasis on the accumulation of knowledge and information, rather than on the development of power, judgment, taste, and discrimination. It was charged that the schools were successful in imparting information, but failed to cultivate in the pupils ability to meet new situations. Personality and individuality were sacrificed for the accumulation of knowledge; the chief cult of the schools was intellectualism. These criticisms were not new. They were inherent in the revolt of youth that began in 1898, when Karl Fischer, a student in one of the secondary schools in Berlin, organized the first group of *Wandervögel* and laid the foundations for the Youth Movement (*Jugendbewegung*), which was to sweep the country and cultivate a new spirit and new attitudes. The movement was a protest against the severe intellectualism of the schools, and represented a yearning for opportunities for emotional expression. Having its roots in eighteenth-century romanticism, the movement preached the gospel of a return to nature and the simple life, free from the restrictions of the conventions and restrictions set up by modern urban life, the control of parents, and the authoritarian discipline of the school. Traveling in small groups, the adherents of the movement wandered over the country under self-elected leaders, living as a family, and cultivating a spirit of independence, strength of body, and a sense of social discipline and coöperation.

For the young rebels the movement stood for the rediscovery of life and of their native land, the inner meaning of both of which they attempted to penetrate; folk songs and folk dances to the accompaniment of the guitar (*Zupfgeige*) were revived; love of the country, love of the people, and love of the national traditions became the gospel of the Wanderbirds. The movement spread widely throughout the secondary schools of Germany, and soon was taken up by the girls. The cult of independence, the questioning of authority, and the growing self-reliance of the youth filled the authorities and parents with a feeling of alarm and suspicion. Attempts were made, but unsuccessfully, to bore from within by the introduction of teachers into the groups. The outbreak of the War put a temporary check on the movement, but the ideals for which it stood had had sufficient time to become stamped into the minds and hearts of young Germany, and after the Revolution fitted in admirably with the aims and aspirations of the new Republic. The philosophy of *Deutschtum*, and the educational theories stressing the development of independent personality, found a ready soil on which to build. Although the *Jugendbewegung* has lost some of its idealism and momentum because of its growth and consequent overorganization, and because of the injection of political and sectarian conflicts, its contribution to the reform of the spirit of secondary education has in theory at any rate been marked.[1]

The new aim in education. The *Jugendbewegung* combined with the recognized need for national solidarity to emphasize the cultivation of *Deutschtum* as the concentration point in secondary as in elementary education. Another aspect was contributed by this movement and by educational theory. The old system had been criticized for its emphasis on intellectualism at the expense of the development of judgment, taste, and appreciation; from another point of view the methods of instruction were open to criticism for the stress on memorization, drill, and cramming, and the discipline for its severity. Knowledge, it is recognized, is the essential basis of culture but not its end; knowledge and information alone deal with externals; their proper fruit is culture, which is internal and personal, and affecting emotion and will as well as the intellect. Culture implies activity, purpose, creation, and a properly balanced and harmonious personality. Hence education must have as its aim not the acquisition of knowledge, but the development of all the powers of the individual — the body, the will, and the emotions. The test of an education is not ability to reproduce information, but interest in and ability to engage in its discovery, or, in other words, ability to handle new situations.

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[1] Alexander, T., and Parker, B. *The New Education in Germany*, pp. 3 ff. (New York, 1929.)

The new aim of education accordingly demanded new methods of instruction. Here, too, a common bond for elementary and secondary education has been found in the activity principle (*Arbeitsprinzip*). The Prussian *Richtlinien* (suggestions) state definitely that instruction should be fundamentally activity instruction. The activity school (*Arbeitsschule*) aims to cultivate in the individual the highest self-activity, to develop creative powers, and to promote joy in work. All learning should be an activity, a creating, a forming. The teacher must not merely impart information, but must discover content that develops powers, independence, judgment, imagination, and will. The pupil must coöperate in the learning process by appreciation of aims and purposes of the task in which he is engaged, and the spirit of classroom procedure must be one of coöperation and mutual interchange of ideas. The aim of the teacher should be to lead the pupil gradually to independence and initiative in work. To this end the time-schedules provide, in the upper sections of the secondary schools, for the organization of small activity-groups (*Freie Arbeitsgemein-*

schaften) in which the pupils, under sympathetic guidance, may continue intensively to pursue their study either in some of the subjects of the curriculum, or to take up new subjects.

Examination reforms. The new spirit is reflected in the regulations for promotions and examinations. To secure promotion a pupil must obtain an average of "satisfactory,"[1] but lower grades may be balanced by satisfactory reports on personality and effort, with certain reservations as to grades in the major subject of the course pursued. Failure to secure promotion, after two years in the same class, means automatically dismissal from the school.

It is, however, the final examination (*Reifeprüfung*, *Abiturientenprüfung*) that best illustrates the spirit of the reform. The examining commissions in each school consist of a representative of the Ministry of Education as chairman, the school principal, and the teachers of the last year (*Prima*) appointed by the Provincial School Board. Each member is expected to visit the classes, and to acquaint himself with the work of the pupils to be examined. Candidates for the examination must submit a full account of their education, and a statement of the special subjects on which they wish to be examined in the oral test. The admission of candidates to the examination is determined by a conference of teachers of the graduating class; their reports must deal with the character, general ability, ability to do independent work, and anything that may be necessary to give an all-round picture of the candidates — their powers of observation, clearness of intellect, judgment, inventiveness, imagination, expression as well as special abilities and activities both in and out of school, participation in activity groups, gymnastics, athletics, and school life in general. The reports are also expected to refer to the home conditions, economic status, and health of the candidates. Consideration is also given to theses which candidates may prepare in their last year on subjects selected by themselves, and usually based on the work of the free-activity groups; the theses are examined by specialists both in and outside the school, and may be accepted in place of written examinations on the subject discussed, or some allied subject. Final permission to take the examination is thus based on the all-round quality of a candidate.

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[1] The scale is: 1, very good; 2, good; 3, satisfactory; 4, poor; 5, unsatisfactory.

The examination itself is in two parts — written and oral. In the written test all candidates must take German and mathematics; the other subjects vary with the type of course; — thus in the *Gymnasium* the test is in Latin and Greek; in the *Realgymnasium* and *Reformrealgymnasium* in French and English, or Latin in place of one of these; in the *Oberrealschule* in modern languages and science (physics or chemistry, or biology according to choice); in the *Deutsche Oberschule* in one foreign language and history or geography. The purpose of the written examination is not to discover mastery of detailed information, but intellectual maturity and ability to pursue university studies; it is not a test on what has actually been done, but something analogous in order to test independence of treatment. Candidates may use the same aids that they would in their regular work. The grades are determined by the whole examining group, which then decides on the oral subjects in which a candidate is to be examined.

The oral examination covers all the work of *Prima,* and the subject in which a candidate feels himself especially strong. The commission as a rule selects the subjects on the basis of the written examination, on the general principle that it is better to examine in subjects in which candidates have already done well and may be expected to show ability. Broad problems are set in order to give candidates scope to indicate their comprehension, judgment, general grasp, and ability to express themselves; adequate time is allowed for preparation. If a pupil shows inability to handle the problem, the specialist on the topic of the examination may decide whether another is to be given or whether to develop one with the pupil. Every effort is to be made to avoid arbitrariness and caprice, and in estimating the final result of the two parts of the examination all aspects of a particular case must be taken into account rather than a mere arithmetical computation of marks.

Rise of extra-curricular activities. The reform spirit is manifested in still another direction in the rise of extra-curricular activities. Largely as a result of the distressful physical conditions that followed the War, and partly of the cult of open-air life which was a feature of the *Jugendbewegung*, increased attention is now devoted to gymnastics and athletics throughout Germany, and, although it is difficult to break old traditions in the secondary schools and universities, considerable progress has been made in introducing such activities in these institutions. School excursions for recreational and educative purposes have been introduced for a day, a week, or longer, have been developed extensively and facilitated by the organization of a network of youth hostels (*Jugendherberge*) through public or private effort, or, in some instances, by the school themselves. The excursions are not restricted to Germany; groups have been taken to the Scandinavian countries, Italy, France, and England. School societies of various types, which were formerly frowned upon by the authorities, are now encouraged, and to some extent self-government has been developed.

It must be emphasized that the reform spirit discussed in the last four sections is still in the main represented more in theory than in practice. The success of such reforms depends wholly on a reorientation of the teachers' point of view, and this cannot be achieved in a generation, particularly as the system of training has not been reformed and the universities still control the destinies of the country. The faculty of philosophy of the University of Berlin issued a memorandum

(*Denkschrift*) in 1928, in which it professed already to see a decline in the quality of secondary-school graduates which was attributed to the relaxation in methods and discipline of pre-war days; it was even recommended that a preparatory college year be established to bring students up to the standards required for university study (*Wissenschaftliche Arbeit*). Observations in a number of schools would rather point to the conclusion that the new methods are not yet widespread. The reason is obvious, and is to be found in the retention of the old system of teacher-preparation which, although in many ways remarkable in its excellence, aimed at perpetuation of standards and traditions rather than at progressive reform.

The preparation of teachers. The system of preparing teachers for secondary schools is governed by a regulation of July 28, 1917.[1] Candidates must be graduates of a nine-year secondary school, and must have spent at least eight semesters in a university of which six must have been in a German university. They must have attended courses in education and philosophy, in subject-matter, and must have been members of seminars and practica in subject-matter, and in sciences must have done work in laboratories. Since 1925 they must have had two semesters of practical training in gymnastics and athletics, and two semesters of lectures on physical education; this requirement, like the development of physical training in the schools, is an attempt to find a substitute for the physical training that used to accompany military conscription. Candidates who wish to teach religion, German, modern languages, or history must at some time have had Latin, or Greek, or English as may be necessary; prospective teachers of modern languages may have attended a foreign university for two semesters. Applications for admission to the examination must present a full statement of the candidate's life, the subjects studied, copies of theses that may have been written, and testimonials from professors in charge of seminars; they may be rejected if the university course was not well organized, or for reasons of character.

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[1] *Weidmannsche Taschenausgaben von Verfügungen der Preussischen Unterrichtsverwaltung*; No. 2, *Ordnung der Wissenschaftlichen Prüfung für das Lehramt an höheren Schulen in Preussen*; *No.* 3, *Die Ordnung der praktischen Ausbildung der Studienreferendare und Ordnung der pädagogischen Prüfung für das Lehramt an höheren Schulen in Preussen* (Berlin, 1923 and 1928).

The subjects of the examination are: (*A*) compulsory for all — philosophy, ethics, theory of adolescence, logic, and epistemology; (*B*) a choice of the following subjects as majors and minors — religion, German, Latin, Greek, Hebrew, French, English, history, geography, mathematics, physics, chemistry, botany, and zoölogy; and (*C*) a wide range of supplementary subjects in place of a minor — introduction to philosophy, civics, education, applied mathematics, mineralogy and geology, classical archæology, history of medieval and modern art, comparative philology, Polish, Danish, Swedish, Dutch, Russian, Spanish, Italian, Turkish, general history of philosophy, drawing, gymnastics, and singing. Candidates may offer three majors, or two majors and a minor in closely related fields.

Each candidate is required to prepare two theses — one on one of his major subjects, and a second on another major or philosophy. Major essays in classical philology must be written in Latin, and in modern languages in the appropriate language; the second essay must be written in German. The examination (*Wissenschaftliche Prüfung*) is conducted before specially constituted boards, and is in two parts. In the written examination candidates must show independence and judgment in their fields, and ability to organize ideas and to express themselves in good German. In both the written and the oral examinations candidates must be sufficiently familiar with the literature of their subjects to show ability for further study in these and to give life to their instruction. Poor grades in the written examination eliminate a candidate entirely.

The oral examination is conducted by specialists in the subjects offered by the candidates. Success in both parts of the examination entitles a candidate to admission to practical preparation.

The practical preparation. The two preparatory years (*Vorbereitungsjahre*) are generally spent in two schools; the first year may be spent in a six-year school, selected for the purpose and under the supervision of the Provincial School Boards; the second in a nine-year school. The group of students in preparation is not more than eight in any one school. The first year is devoted to the study of the history of education, the organization of German education, methods of instruction in the selected subjects, and the marking of pupils' written work; psychology and ethics, methods in religion, German, and history, their place in the curriculum, and the work of the teacher are studied in the second year. In both years courses are organized in school hygiene, with participation in physical training, the principles of discipline, discussions of important educational works, and observation and practice teaching. The work is conducted under the supervision of the school principal and selected teachers directly, although all teachers are expected to participate. Unsatisfactory candidates may be dropped during or at the end of the first year; the others continue their preparation in another school.

On the basis of satisfactory reports as to character, suitability for the teaching profession, health, research and teaching ability, candidates are admitted, at the end of the second year, to the professional examination, which is in three parts. The written examination consists of a thesis on education in method, based on practical experience; the oral examination takes the form of a discussion by all the candidates of a subject selected by the chairman of the examining committee, intended to demonstrate ability to handle educational and class problems; the third part consists of a lesson of about thirty minutes' duration conducted before the committee on one of two topics assigned at two days' notice, and based on the work done in the last semester of preparation. In the final decision all factors are taken into consideration — the written and oral examinations, the lesson, and reports on the candidate during his period of preparation. If a candidate fails, the examining committee may decide whether he is to be rejected, or to be permitted to continue his preparation for a half or a full year additional. The list of successful candidates is then arranged by subjects, as, for example, religion; German, history and geography; Latin and Greek; French and English; mathematics and physics; chemistry, natural science, and geography; additional subjects; but whatever the combination of subjects, they are in all cases closely related.

The system of selecting teachers offers a certain guarantee of mastery of the subjects they intend to teach, but the system of preparation is too much of the apprenticeship type, a type in which the older generation is more likely to transmit its own methods, aims, and ideals than to encourage progress and reforms that are to-day in direct contradiction to the traditions under which they were educated and trained. The situation is somewhat aggravated at the present time because political views tend to color attitudes to educational innovations. Hence, while new methods, governed less by old practices, by requirements of the examinations, and by standards demanded by the universities, are found, older methods still prevail. It is for these reasons that proposals are being made for a reorganization of teacher preparation on a professional basis in the universities, where a more sympathetic attitude to the subject would have to be created, rather than the apprenticeship or craftsman preparation which takes place in the schools. This is recognized as all the more urgent in view of the progress made in the reform of the preparation of teachers for the elementary schools.

The outlook. The problem of secondary education for all, the *Einheitsschule*, has been shelved. The reform that has been inaugurated is still in the old molds with the addition of the two new types of schools, the *Deutsche Oberschule* and the *Aufbauschule*. Within these types reforms are to be looked for in the reorganization of the content and a change in the spirit and aims of instruction. Secondary education is still, therefore, selective in character, and continues to be an education for status. Secondary and higher education in Germany is still sought for the privileges that it confers, and its aims are still confused by the old defect of *Berechtigungswesen*, the system of privileges which are conferred at the end of the sixth year (*Mittlere Reife*) and at the end of the ninth year (*Reife*), and which lead to certain economic and professional advantages. In post-war Germany the problem has become more serious because of the restriction of economic opportunities for the educated man, and the consequent intensification of competition. The pressure to secondary education is being forced by the requirement of the *Mittlere Reife* by employers' unions in such occupations as shoemaking, tailoring, and waiting in restaurant cars. Already large numbers of secondary-school graduates are unemployed because of an education that is misdirected.[1] The criticism falls, however, not on the secondary schools, but on the failure of the leaders and the authorities, when the opportunity offered itself to attack the whole problem of education as a unit and to provide much wider selection of differentiated opportunities.

The change in the situation may be seen from a comparison of the size of the population and the school enrollment before and after the War. In 1910 the German population was nearly 65,000,000, and the enrollment in all secondary schools in 1911 was 662,105 (427,644 boys and 234,461 girls); in 1926–27 the population was less than 64,000,000 and the enrollment in secondary schools was 822,609 (551,322 boys and 271,287 girls). In view of the unemployment of so many secondary-school graduates, Germany may still be compelled to retrace her steps and provide a secondary-school system that is better adapted to the needs of a democracy in an industrial age. For the present, her contribution lies in the reform of the conception of liberal education adapted to the new conception of nationalism, but the secondary schools are still selective and adapted to the training of one type of *élite* only.[1]

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[1] Übervölkerung der höheren Schulen und Arbeitslosigkeit. *Preussische Volksschullehrerinnenzeitung*, Oct. 1, 1929.

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[1] See *Educational Yearbooks*, 1924 ff., of the International Institute of Teachers College, and especially *Educational Yearbook*, 1926, pp. 496 ff.; Kandel, I. L., and Alexander, T., *Reorganization of Education in Prussia* (New York, 1927); Alexander, T., and Parker, B., *The New Education in the German Republic* (New York, 1929); Kühn, W., *Schulrecht in Preussen* (Leipzig, 1926); *Die Reichsschulkonferenz*, 1920 (Leipzig, 1921); Riesenbürger, W., *Die rechtliche Grundlagen des mittleren und höheren Schulwesens in Preussen* (Düsseldorf, 1926); *Weidmannsche Taschenausgaben von Verfügungen der Preussischen Unterrichtsverwaltung*: No. 2, *Ordnung der wissenschaftlichen Prüfung für das Lehramt an höheren Schulen in Preussen*; No. 3, *Die Ordnung der praktischen Ausbildung der Studienreferendare und Ordnung der pädagogischen Prüfung für das Lehramt an höheren Schulen in Preussen*; No. 6, *Richtlinien für einen Lehrplan der Deutschen Oberschulen und der Aufbauschule*; Nos. 19 and 20, *Richtlinien für die Lehrpläne der höheren Schulen Preussens*; No. 22, *Die Aufbauschule in Preussen*; Nos. 27–30, *Die Leiter und Lehrer an öffentlichen höheren Lehranstalten in Preussen*; No. 31, *Die Verwaltungsordnung für städtische höhere Lehranstalten*; No. 33, *Schüler und Schülerin der höheren Schule*; Nos.41 a–d, *Versetzungs- und Prüfungsbestimmungen für die öffentlichen höheren Lehranstalten* (Berlin). For other States see *Das deutsche Schulwesen* issued by the *Zentralinstitut für Erziehung und Unterricht* (Berlin annual).

CHAPTER VIII

IN ENGLAND

Status of English secondary education in the eighteenth century

Social conditions. Both secondary and higher education in England reached their lowest ebb in the eighteenth century. The decline was due to a variety of causes, some external, some internal. The social conditions in the first half of the eighteenth century were not such as to contribute to vitality in education. The religious difficulties of the seventeenth century bequeathed to the first part of the eighteenth century a religious life which was cold, formal, and unemotional, and which in due time was to lead to a natural reaction. In every department of politics corruption and favoritism were widespread. The life of society was marked by hardness and indifference, which were reflected in coarseness in mind and thought and in brutality in manners, not by any means confined to any particular social class. Hard drinking, gambling, and brutal sports were accompanied by low thinking and intellectual stagnation. The literature of the day, inspired, it is true, by the classics, was polished, refined, and formal, and, although governed by the canons of a pseudo-classicism, was marked by a suppression of the emotions. Even the wit of the coffee-houses in time lost its spontaneity and freshness and became stilted and standardized. At the same time the century saw the slow beginnings of the industrial revolution, and all the evils of degradation that accompany a momentous social change, which the governments of the day neither understood nor were able to control.

Yet it was the same century that witnessed the gradual rise of a spirit of humanitarianism, out of which were to spring the first movements on a large scale for the education of the masses and for social legislation. The severe intellectualism of the first half of the century was to yield to a gradual broadening of interests. In music this was the century of Handel and the cult of Italian and native opera; in architecture Wren and Inigo Jones and Sir William Chambers produced their masterpieces; in furniture new forms were created by Adam, Chippendale, and Sheraton; in scholarship there were outstanding figures like Bentley and Porson, Newton and Halley; in literary criticism pioneer work was done by Samuel Johnson and Malone; in religion the evangelicism of the Wesleys and Whitefield aroused a fervor that was to give a new meaning to religious living. The loss of the American colonies was compensated by the addition to the Empire of Canada, Australia, and India. An era of great statesmen, soldiers, and sailors established the political and military supremacy of England. The inventions and the utilization of existing mineral resources led to the industrial revolution, a rapid commercial expansion, and the rise of a new social class which acquired its wealth through native ability and initiative, and which before long was to contest the authority and power of the hitherto securely entrenched upper classes.

Obstacles to reform. This progress and these changes found no echo in secondary and higher education until late in the century. The defects which began to be noted at the beginning of the century only became increasingly aggravated as the gap between the educational institutions and social development became wider. Some of the external causes arising out of the social conditions of the time and the consequent lack of genuine interest in education have already been mentioned. There were, in addition, a number of internal factors which tradition had thrown up as obstacles to change and progress. The majority of the endowed schools had been established as free grammar schools to give a classical training, and nothing else. The provision of the deeds of foundation continued to be so literally interpreted by the law that the trustees of schools were prevented, except by special acts of Parliament, from modifying the curriculum to suit the changing demands.

As a consequence some schools continued with the traditionally established routine, with its emphasis on Latin and some Greek, open to such pupils as were willing to avail themselves of the opportunities offered; others neglected even this obligation; others contented themselves with giving an elementary education only; while still others added modern subjects — arithmetic, geometry, accounts, French, dancing, and other accomplishments — as extras for which fees were charged. The situation was summarized by Carlisle, at the beginning of the nineteenth century, as follows:

> It is painful, however, to relate that many of our numerous and ample endowments have fallen to decay, by the negligence or cupidity of ignorant or unprincipled Trustees, who have silently, or by connivance, suffered the furtive alienation of the very lands which they were called upon so solemnly to defend, and which were in a great measure ordained for the education of their own children. ... It appears absolutely necessary that such disorders and misapplication should speedily be abolished, by a public investigation and reform of the evils, which is only within the power of Parliament.[1]

Legal restrictions. Considerable time was, however, to elapse before the public authorities in England began to show an interest in the organization of education. Opposition to the exercise of state control was too deeply entrenched to justify state interference. The courts were equally powerless to authorize modifications in the deeds of foundation. Lord Eldon, accepting Johnson's definition of a grammar school as "a school in which the learned languages are taught grammatically," handed down a decision in 1805 in the Leeds Grammar School Case (*Attorney-General* v. *Whiteley*) that no part of the funds of the school could be allocated to procure teachers of French or German or to create a subsidiary department for commercial training. A similar decision handed down by Lord Eldon (*Attorney-General* v. *Earl of Mansfield*) in 1826–27 refused permission to convert a grammar school into an elementary school, even though the school had not taught the classics within the memory of man. An unsuccessful attempt was made, in 1820, to permit the addition of English, writing, and accounts to the classical curriculum of grammar schools, in a bill presented to Parliament "for improving the administration of endowments connected with education, and for the better fulfilling the intentions of the founders thereof." Public schools and universities were exempted from the provisions of the bill, but it was feared in all seriousness that the introduction of such subjects would degrade the grammar schools, the majority of which followed the practices of Eton or Westminster. It was not until 1840 that the situation was relieved by Parliament by the Grammar Schools Act.[1]

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[1] Carlisle, N. *A Concise Description of the Endowed Grammar Schools in England and Wales*, I, p. xxxv. (London, 1818.)

The only public authority besides the courts that had the right to intervene in the conduct of endowed grammar schools was the Church of England, through its right to license teachers. This right was again confirmed by the Schism Act, 1714, which definitely affected teachers in schools established to teach the classics, but exempted teachers of reading, writing, arithmetic, or any part of mathematical learning so far as related to navigation or any mechanical art, and provided instruction was given in English. The Act was repealed in 1719, but a statute of 1779 excluded dissenters from the mastership of any foundation established before the reign of William and Mary.[2] Although endowed with the right to license teachers, the Church authorities were apparently negligent in exercising it, to the benefit of the schools as appeared in *The King* v. *The Archbishop of York* (1795). In this case the Chief Justice, Lord Kenyon, stated:

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[1] De Montmorency, J. E. G. *State Intervention in English Education*, p. 181. (Cambridge, 1902.) On the Leeds Grammar School case see Schools Inquiry Commission, *Report*, I, pp. 452 ff. See also Carlisle, *op. cit.*, II, on the Thornton Grammar School case.

[2] De Montmorency, *op. cit.*, pp. 176 f.

> Whoever will examine the state of the grammar schools in different parts of the Kingdom will see to what a lamentable condition most of them are reduced, and would wish that those who have any superintendence over them had been as circumspect as the Archbishop of York has been on the present occasion. If other persons had equally done their duty, we should not find, as is now the case, empty walls without scholars, and everything neglected but the receipt of salaries and emoluments. In some instances that have lately come within my own knowledge, there was not a single scholar in the schools though there were very large endowments for them.

The restricted curriculum. The apathy of the Church was accompanied by that inertia which so frequently besets the teaching profession, an inertia which is at once unwilling to make changes and at the same time attempts to rationalize and justify the status quo. It was not only the schoolmasters, however, who justified the retention of the classics as the sole subjects of instruction; they had the support of the intellectual leaders of their day. Thus Swift, in lamenting the tendency of the upper classes to educate their boys privately, especially in French and accomplishments, argues:

> There is one circumstance in a learned (that is, a classical) education which ought to have much weight, even with those who have no learning at all. The books read at school and college are full of incitements to virtue, and discouragement of vice, drawn from the wisest reasons, the strongest motives, and the most influencing examples. Thus young minds are filled early with an inclination to good and an abhorrence of evil, both of which increase in them, according to the advances they make in literature.[1]

Johnson argues in somewhat the same vein when he urges that:

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[1] *An Essay on Modern Education.*

> Those authors, therefore, are to be read at schools that supply most axioms of prudence, most principles of moral truth, and most materials for conversation; and these purposes are best served by poets, orators, and historians.[1]

From a statement made elsewhere it is clear that he always had in mind the classics, for "Modern writers are the moons of literature; they shine with reflected light, with light borrowed from the ancients. Greece appears to be the fountain of knowledge; Rome of elegance." [2] The schools in teaching Latin and Greek, according to Gibbon, "deposit in the hands of a disciple the keys of two valuable chests; nor can he complain, if they are afterwards lost or neglected by his own fault."

It was not only the avowed opponents of the inclusion of modern subjects in secondary education who were the strongest advocates of the classics. Vicesimus Knox, himself a schoolmaster, a severe critic of the universities of his day, and an advocate of instruction in French and English in the schools, was

> rather induced to defend that discipline which lays the foundation of improvement in ancient learning, because I think, and am not singular in my opinion, that not only the taste, but the religion, the virtue, and I will add, the liberties of our countrymen, greatly depend upon its continuance.... Classical discipline is not only desirable, as it qualifies the mind for this profession or for that occupation; but as it opens a source of great pleasure unknown to the vulgar. Even if it were not the best preparation for every employment above the low and the mechanical, which it confessedly is, yet it is in itself most valuable, as it tends to adorn and improve human nature, and to give the ideas a noble elevation.[3]

No doubt a good case might be made out for a classical education, either to the neglect or with the inclusion of other subjects, but except for the dissenting academies, private schools which attempted to venture into new fields and to meet the demand for modern subjects were generally in ill-repute, and could not be cited as examples of useful experimentation.

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[1] *The Life of Milton.* [2] Boswell's *Life.*

[3] Knox, V. *Liberal Education,* I, p. 4. (London, 1781.)

The school life. It was not the narrowness of the curriculum alone that led to the decline of schools generally (there were exceptions here and there), but the brutality and hardness of school life that deterred parents from sending their boys at any rate to the boarding schools. The arrangements for the boarding of pupils were haphazard, and unsupervised by the masters even of the best schools. Pupils lived in lodgings or dames' houses, and it was not unusual for schools to charge additional fees for the use of single beds; frequent complaints were heard of the food; but, worse than these conditions, was the absence of control over and of organization of the free time of the pupils. The picture of the system of fagging, under which the younger boys were slaves to the older tyrants until they themselves became old enough to exercise their rights of tyranny, presented in *Tom Brown's School Days*, does not appear to have been overdrawn. According to Cowper, a pupil at Westminster, "Great schools suit but the sturdy and the rough" (*Tirocinium*). In a letter to Lord Shelburne Lord Chatham wrote "that he scarce observed a boy who was not cowed for life at Eton; that a public school might suit a boy of turbulent, forward disposition, but would not do where there was any gentleness."[1]

The roughness and abuses were not, however, confined to the relations among the pupils alone. There was scarcely a school of note in the eighteenth century (at Eton the last rebellion took place in 1832) in which there could not be cited rebellions, riots, and barrings-out against the masters. Turbulence and violence on the part of the pupils called for severity of discipline on the part of their enemies, the teachers. The whole atmosphere of schools until the reforms of the first part of the nineteenth century was one of mistrust, and even Keate, who was headmaster of Eton from 1809 to 1834, expected every boy to lie to him. Hence no other method of discipline was known than flogging and no distinction was made in the nature of the offence, whether it was moral delinquency, idleness, laziness, or poor preparation. So far as public opinion was concerned flogging was fully justified, on the principle of Crabbe's schoolmaster,

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[1] Quoted in Lyte, Sir H. C. Maxwell, *A History of Eton College*, p. 367. (London, 1899.)

> Students [he said] like horses on the road,
> Must be well lash'd before they take the load.

Johnson, who attributed his knowledge of the classics to the whipping administered to him by his teachers, justified flogging on the ground that

> the discipline of a school is military. There must be either unbounded licence or absolute authority. The master who punishes not only consults the future happiness of him who is the immediate subject of correction but he propagates obedience through the whole school and establishes regularity by exemplary justice.... Severity must be continued until obstinacy be subdued and negligence be cured.[1]

Indeed, Johnson professed to see a close correlation between learning and flogging, for

> There is now less flogging in our great schools than formerly, but then less is learned there; so that what the boys get at one end, they lose at the other.[2]

Goldsmith, subscribing to Solomon's proverb, agreed that

> though tenderness is a requisite quality in an instructor, yet there is too often the truest tenderness in well-timed correction.[3]

It was not often, however, that such records were established as those of George Heath at Eton, who administered two cuts to each of seventy boys in turn and "was laid up with aches and pains for more than a week," and of Keate, who left his guests at dinner on one occasion to flog eighty boys.

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[1] Boswell's *Life*. [2] *Ibid.*

[3] *The Bee*, No. V, *Of Education.*

Eulogists of the public schools. Yet rough and brutal as the life in schools was, the public schools[1] had their advocates. Gibbon, for example, stated:

> I shall always be ready to join in the common opinion, that our public schools, which have produced so many eminent characters, are the best adapted to the genius and constitution of the English people. A boy of spirit may acquire a previous and practical experience of the world; and his playfellows may be the future friends of his heart or his interest. In a free intercourse with his equals, the habits of truth, fortitude, and prudence will be insensibly matured. Birth and riches are measured by the standard of personal merit; and the mimic scene of a rebellion has displayed in their true colors, the ministers and patriots of the rising generation.[2]

The same justification for the public school is found by Goldsmith.

> A boy will learn more true wisdom in a public school in a year, than by a private education in five. It is not from masters, but from their equals, youth learn a knowledge of the world; the little tricks they play each other, the punishment that frequently attends the commission, is a just picture of the world, and all the ways of men are practiced in a public school in miniature. It is true, a child is early made acquainted with some vices in a school, but

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[1] The English public school is, of course, not to be confused with the American. The term "public school" began to be used in the eighteenth century for a number of grammar schools which were non-local in character and drew their pupils from a wide area. This meant that they were boarding schools. Official sanction was given to the use of the term by a number of government commissions beginning with that of Lord Brougham in 1818. The Clarendon Commission of 1864 was appointed to inquire into the nine Great Public Schools (Eton, Harrow, Winchester, Rugby, Shrewsbury, Charterhouse, Westminster, St. Paul's, and Merchant Taylors'). The term was later extended to include those schools whose headmasters could qualify for membership in the Headmasters' Conference, which is discussed later in the text. These schools are listed and described in the *Public Schools Yearbook.* (See Monroe, P., *Cyclopedia of Education,* s.v. *Public School.*)

[2] Gibbon, E. *Memoirs of My Life,* ed. by Hill, G. B., p. 39. (London, 1900.)

it is better to know these when a boy, than be first taught them when a man, for their novelty then may have irresistible charms.[1]

Learning from emulation, the collision of mind with mind, and the radiation of many minds pointing to one center justify, according to Johnson, the public over the private schools. Priestley, while of the opinion that "no advantage attending any mode of education is comparable to that truly manly and generous disposition which is acquired by living on terms of equality with others," admitted that in most of the public schools "a young man runs the greatest risk of having his morals corrupted in them." [2] On the other hand, the *Edinburgh Review* doubted, in 1810, whether public schools are favorable to the cultivation of knowledge or morals, particularly in schools where the numbers precluded any direct influence of the master on the "character, manners, and information" of the pupils.[3]

In spite of the eulogies of the public schools it is significant that, from 1702 to 1760, only nineteen schools were founded, and out of these eight were established before 1714. There is no doubt that the combination of the hard conditions of school life and the demand for modern subjects of a utilitarian character provided an opportunity for the rise of many small private schools, both day and boarding. The fluctuations in enrollment in the public schools, which were marked throughout the century, to some extent reflect the attitude of the public. A strong headmaster was able to revive a declining school, and of this there are many examples, such as Barnard (1754–65) and Goodall (1791–1800) at Eton, James (1778–94) at Rugby, Butler (1798–1836) at Shrewsbury, and Thackeray (1746–60) at Harrow. In general, however, the teachers as a class had little conception of the broader functions of education and of

[1] *The Bee*, No. VI, *Of Education.*

[2] Priestley, J. *Observations on Education.*

[3] *Edinburgh Review*, August, 1810, XVI, pp. 332 f.

their duties to their pupils beyond the narrow round of instruction. The character of the discipline has already been discussed; to this must be added the fact that most of the large schools were understaffed, that all pupils were as a rule taught together in one large hall or classroom until the beginning of the nineteenth century, and that the chief function of class meetings was not instruction but hearing of lessons. It was not uncommon, as a result both of the inadequacy of instruction and of the boarding conditions, for the boys of well-to-do families to be accompanied to school by tutors, as was the hero of Smollett's *Peregrine Pickle*.

The teachers. If the lot of the pupils was hard, that of the teacher, between a turbulent clientèle and school governors who in spite of the increase in the value of endowments not infrequently continued to pay stipends determined one or two centuries earlier, was worse. The widening gulf between scholars and gentlemen which developed during the century contributed further to depress the status of the teacher. Even though here and there the position of a headmaster was satisfactory, that of the assistant master or usher was never enviable. The usher, according to Goldsmith,

> is generally some needy animal, little superior to a footman either in learning or spirit, invited to his place by an advertisement, and kept there merely from his being of a complying disposition, and making the children fond of him.[1]

The more detailed account of the life of an usher which Goldsmith portrays in the *Vicar of Wakefield* (chap. XX) reflects no credit on the condition of the teaching profession, even if allowance is made for the exaggerations of the writer's own recollections of a bitter experience.

> I have been an usher to a boarding-school myself; and may I die by an anodyne necklace, but I had rather be an under-turnkey in Newgate! I was up early and late; I was browbeat by the master,

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[1] *The Bee*, No. VI, *Of Education.*

> hated for my ugly face by the mistress, worried by the boys within, and never permitted to stir out to meet civility abroad. But are you sure you are fit for a school? Let me examine you a little. "Have you been bred apprentice to the business?" — "No." — "Then you won't do for a school. Can you dress the boys' hair?" — "No." — "Then you won't do for a school. Have you had the small-pox?" — "No." — "Then you won't do for a school. Can you lie three in a bed?" — "No." — "Then you will never do for a school. Have you got a good stomach?" — "Yes." — "Then you will by no means do for a school. No, sir; if you are for a genteel, easy profession, bind yourself seven years as an apprentice to turn a cutler's wheel; but avoid a school by any means."

There are, indeed, few instances of the rise of schoolmasters to distinction. A great classical scholar like Dr. Parr of Harrow, or the headmasters cited above might attain a reputation beyond the limits of their schools, but Grub Street or a small living claimed the rest.

The changing social conditions of the eighteenth century were no doubt responsible for this situation, but to a considerable degree the responsibility lay with the Universities of Oxford and Cambridge, which probably never declined so low as they did in the eighteenth century. Even though great figures did emerge during this century, it was more by virtue of native ability than as a result of university influence. There was considerable truth in Lord Chesterfield's statement, made in 1749, that "the one is sunk into the lowest obscurity, and the existence of Oxford would not be known, if it were not for the treasonable spirit publicly avowed, and often excited there." [1]

Condition of the Universities. The decline of the universities was due to antiquated statutes which prevented the official recognition of modern subjects, although facilities for private instruction in them appear to have been generally available. Oxford University, for example, was governed throughout this century and beyond by the Laudian Statutes of 1636. The requirement of subscription to the Thirty-Nine Articles and of the oaths of allegiance and supremacy excluded a large part of the population that might have been drawn upon, and the absence of provisions for preparing students for the legal, medical, and other professions compelled them to go elsewhere. Although the statutes set up regular examinations for the degrees, and prescribed requirements in logic, moral philosophy, geometry, astronomy, natural philosophy, metaphysics, history, Latin, Greek, and Hebrew, facilities for obtaining instruction in all these subjects were so inadequate that few college tutors, on whom the burden of instruction fell, were capable of teaching more than logic and the classics. The university professorships established in the sixteenth century, and increased in number during the eighteenth, were so poorly remunerated that, on the one hand, they failed to attract scholars of distinction, and, on the other, were "given away, as pensions and sinecures, to anybody that can make a good interest for them, without any respect to his abilities or character in general, or to what faculty in particular he has applied his mind."[1] Many of the professors, in fact, never even attempted to lecture.

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[1] Quoted in Lecky, W. E. H. *A History of England in the Eighteenth Century*, III, p. 19. (D. Appleton and Company, New York, 1893.)

As to the fellows or "monks of his time," Gibbon wrote:

> They were decent easy men, who supinely enjoyed the gifts of the founder; their days were filled by a series of uniform employments: the chapel and the hall, the coffee-house and the common room, till they retired, weary and well satisfied to a long slumber. From the toil of reading or thinking or writing, they had absolved their conscience; and the first shoots of learning and ingenuity withered on the ground, without yielding any fruits to the owners or the public. ...Their conversation stagnated in a round of college business, Tory politics, personal anecdotes, and private scandal; their dull and deep potations excused the brisk intemperance of youth.[2]

[1] Knox, V. *Liberal Education*, II, p. 125. Quotation from Mr. Amhurst and Dr. Newton on *Subjects Relating to the Universities*.

[2] Gibbon, E. *Memoirs of My Life* (ed. by Hill, G. B.), p. 57. (London, 1900.)

Under these conditions even such examinations as were prescribed degenerated into a farce. The candidates virtually selected their own examiners and went through a disputation on traditional questions and answers, learned by heart from "schemes" or little books which the candidates often kept before them in their caps, a procedure described by Cowper in *The Task:*

> The schools become a scene
> Of solemn farce, where ignorance on stilts,
> His cap well lined with logic not his own,
> With parrot tongue performed the scholar's part,
> Proceeding soon a graduated dunce.

John Scott, later Lord Chancellor Eldon, thus describes his examination for the B.A., which he took in 1770:

> An examination for a degree at Oxford was a farce in my time. I was examined in Hebrew and history. "What is the Hebrew for the place of the skull?" — I replied "Golgotha." — "Who founded University College?" — I stated (though, by the way, the point is sometimes doubted) that "King Alfred founded it." — "Very well, sir," said the examiner, "you are competent for your degree." [1]

Beginnings of university reform. The requirements for the M.A. were, if possible, more ignored, and residence was often dispensed with. These conditions survived until the passing of the Public Examination Statute in 1800, which substituted written for oral examinations and differentiated students into pass and honors men. The beginning of reforms at Oxford dates from the passing of this statute, through the efforts of Dr. Cyril Jackson of Christ Church, Dr. John Parsons of Balliol, and Dr. John Eveleigh of Oriel.[2]

Conditions at Cambridge University were considerably better than at Oxford. This was not due so much to the fact that

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[1] Barnard. *American Journal of Education*, XXXVI, p. 356.

[2] See, in general, Godley, A. D. *Oxford in the Eighteenth Century.* (New York, 1908.)

Cambridge enjoyed the favor of the Court, which was not infrequently used for interference in making appointments, but to such men as Richard Bentley and Sir Isaac Newton, who maintained the reputation of the University as a center of learning. Cambridge preceded Oxford by more than half a century in organizing a serious examination in the field on which it had attained distinction; the first examination for the Mathematical Tripos being held in 1747. In 1780, the Senate House examination for the B.A. degree was introduced.

The education of a gentleman. Another factor that explains the decline of secondary education in the eighteenth century has still to be considered. In an earlier chapter it has been shown that the upper classes never looked with favor on the secondary schools, because their bookishness and narrow routine did not prepare for the life of a gentleman. The gulf between the scholar and the gentleman became even wider in the eighteenth century. To this Locke's educational theory, with its emphasis on a broader intellectual training, on moral development, and physical hardening, contributed in no small measure. Locke's view of contemporary education is shown in his statement that "of a great part of the learning now in fashion in the schools of Europe... a gentleman may in good measure be unfurnished with, without any great disparagement to himself or prejudice to his affairs." His attitude on private rather than public education was widely approved by the upper classes, who adopted generally the practice of educating their children at home and of sending them on the *Grand Tour*, either with or without a period of attendance at one of the universities. The ideal that was aimed at was the gentleman with a knowledge of the world and of man, polished with the manners and graces of his class.

A new type thus appears — the noblemen versed in classics and philosophy and despising equally the pedantic scholar and the country gentlemen who devoted themselves to riding, fencing, and hunting, and who, according to Defoe, "felt themselves above the need of learning which is necessary for the lower classes to secure employment." The new type, the *Virtuoso*, was best exemplified by a man like Ashley Cooper, the Earl of Shaftesbury, Locke's pupil, who combined in his person all the qualities of the scholar and of the gentleman. For the development of education the new type was important, and was to become of great significance later by showing that scholarship or polite learning and the moral and social graces of the gentleman were not mutually exclusive. The new ideal also found its expression in the writings of Lord Chesterfield.

> If you would have your son [he wrote] be a very learned man, you must certainly send him to some great school; but if you would have him be a better thing, a very honest man, you should have him *à portée* of your own inspection. At those great schools the heart is wholly neglected by those who ought to form it.[1]

And again, after decrying the prejudices derived in the schools in favor of the classics, he wrote to his son in 1748:

> I would by no means have you disown your acquaintance with the ancients, but still less would I have you brag of an exclusive intimacy with them. Speak of the moderns without contempt and of the ancients without idolatry; judge them all by their merits, but not by their ages.

Since the grammar schools devoted to the narrow grammatical routine were not able to meet the new demands, the upper classes, for a great part of the century, refrained from sending their boys there and preferred to have them educated by a private tutor at home. The decline in the number of students at the universities was also due in part to the same cause. It is not improbable also that the prevalence of the small private school was to some extent due to imitation of the practices of the upper classes. Swift ascribes the spread of private education to the influence of soldiers returned from France, setting themselves up as dictators of behavior, dress, and politeness, and leading in turn to the employment of French tutors.

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[1] Chesterfield, *Miscellaneous Works*, IV, p. 243.

The curriculum in the eighteenth century. It is obvious that what was demanded of the schools was greater breadth of curriculum and more definite preparation for life, whether that of the nobleman of leisure or that of middle classes in business. The major part of the work, "the boys' business" as it was called, consisted almost wholly of the classics. Dr. Thomas James has left an account of the work done during his headmastership at Rugby, which also was followed with some variations and omissions at Eton. The lower forms read from Nepos, Cæsar, Cicero, Terence, Ovid, Vergil, Horace, Tibullus, Lucian, Æsop, and *Poetæ Græci*, and did exercises in Latin prose and verse translation and Latin themes in prose and verse. Latin syntax and accidence were given considerable time and attention; Greek grammar was begun in the Third Form. In the last two forms, the Fifth and Sixth, the following Greek works were read: Homer, *Poetæ Græci*, *Scriptores Græci*, Demosthenes, Pindar, selections of Greek plays, and Greek Testament; the Latin reading included *Scriptores Romani*, Vergil, Horace, Tibullus, Propertius, Juvenal, Persius, Cicero, Livy, and Tacitus. Latin and Greek prose and verse exercises were done each week, and considerable amounts of Greek and Latin were learned by heart. Some attention, about one hour a week, was given to Scripture, and to Roman and English history.

Since an average class period sufficed only for construing from thirty to forty lines of an assigned author, much has to be read outside. If English was not included in the time-table, pupils were expected to read widely in their leisure time such works as the *Spectator*, Milton, Pope, Roman and Greek antiquities, and "all other books necessary towards making a compleat scholar." Dr. James also endeavored to teach mathematics once a week. At Rugby under James's régime, there were masters of writing, arithmetic, and French which, with dancing, drawing, and fencing, were taught as extras on half-holidays, a practice which was common in other leading schools of the day.

That the best products of these schools were thoroughly masters of Homer, Vergil, and Horace is incontestable, and it is equally undeniable that scholarly teachers could give unlimited breadth even to a narrow curriculum. Such teachers were few and far between at a time when classical studies at the universities remained unreformed. For the majority of pupils Pope's strictures held as good at the end of the century as at the time when he wrote:

> We ply the memory, we load the brain,
> Bind rebel wit, and double chain on chain,
> Confine the thought, to exercise the breath,
> And keep them in the pale words of death.
> Whate'er the talents, or howe'er designed,
> We hang one jingling padlock on the mind.[1]

It was during the latter part of the eighteenth century that those school activities which have become characteristic of English public, and, indeed, of all English secondary schools, first found a footing. Games of miscellaneous kinds had always been played; it is estimated that about the middle of the century more than thirty different games were to be found in the schools. Cricket appeared before the middle of the century; the first interscholastic cricket match was played in 1796 between Westminster and Eton, the latter team suffering the double ignominy of a defeat and a flogging on their return to school for absenting themselves without leave. Football in some unorganized form had always been played, but most masters probably shared the opinion of Samuel Butler of

[1] Pope. *The Dunciad*, Book IV, lines 157 ff.

Shrewsbury that it was "only fit for butcher boys." Theatricals and debating and other societies sprang up in this period, and what was probably the first school magazine, the *Microcosm*, made its appearance at Eton in 1786, followed at Westminster by the *Trifler* and the *Flagellant*, a contribution to which brought about Southey's expulsion from the school; in 1804 the *Miniature* came into existence at Eton.

Defense of the public schools. Towards the close of the eighteenth century, a change was proceeding slowly in the spirit of the schools, which needed only tactful handling by a few headmasters with breadth of mind and understanding of boys to be converted into a valuable educational instrument. There were many who shared the enthusiasm for the public schools, so eloquently expressed by George Canning:

> Foreigners often ask, by what means an uninterrupted succession of men qualified more or less eminently for the performance of Parliamentary and official duties, is secured. First, I answer (with the prejudices, perhaps, of Eton and Oxford) that we owe it to our system of public schools and universities. From these institutions is derived (in the language of the prayer of our Collegiate Churches) "a due supply of men fitted to serve their country in Church and State." It is in her public schools and universities that the youth of England are, by a discipline which shallow judgments have sometimes attempted to undervalue, prepared for the duties of public life. There are rare and splendid examples, to be sure; but in my conscience I believe that England would not be what she is, without her system of public education; and that no other country can become what England is, without the advantages of such a system.[1]

The justification of the grammar schools against the legislative interference proposed in 1820, made by Vicesimus Knox, is equally striking:

> I arrogate not too much to grammar schools, when I venture to conjecture, that such is the discipline, and such the kind of learning

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[1] Lyte, Sir H. C. Maxwell. *A History of Eton College*, p. 367. (London, 1899.)

> which they communicate, that we may ascribe to them, in great measure, that prevalent correctness of moral and religious principle, that manliness of mind, that delicate sense of honor, that love of liberty, that spirit of benevolence, which are acknowledged even by neighboring nations, who envy, while they eulogise, to diffuse over this favored island an unrivalled lustre. That our national character excels that of our neighbors, is allowed, on comparison, by travellers the most enlightened and impartial. Of this proud preëminence there must be some cause singularly powerful. And surely a superior mode of education, attainable by all, and adopted by most who from circumstances are able to avail themselves of it, seems perfectly adequate, in the course of centuries, to the production of an effect, like this, no less general than illustrious.[1]

That the schools could inspire a lasting love and devotion among their pupils which time only helped to increase is amply evidenced in English literature, even during the period of decline in the eighteenth century. Whether their contributions to English life in general were as great as was claimed by Canning or Knox is doubtful. If Canning could claim the public schools as the source of an "uninterrupted succession of men qualified more or less eminently for the performance of Parliamentary and official duties," the *Edinburgh Review* could with equal truth, in 1810, deny the claim that all great men had been educated in the public schools, "great as the rage is, and long has been, for public schools," and could substantiate this denial with a long list of poets, scientists, historians, artists, doctors, philosophers, soldiers, lawyers, statesmen, economists, scholars, and men of letters who had not attended these schools and in some cases not the universities.[2]

Change in clientèle. The fact was that the clientèle of the grammar schools, and especially of the public schools, had gradually undergone a change in the eighteenth century, and towards the close of the century tended to be drawn from the well-to-do and the upper classes. In some cases a depreciation in the value of the endowments made it impossible to secure a competent teacher of the classics without the aid of fees; in others, especially in the case of the great schools, the free scholars were gradually submerged among the larger number of fee-paying pupils who were not permitted to participate fully in the life of the school, were badly housed and fed, and generally held a position of inferiority arising out of their social status. Small grammar schools, not so well situated as the public schools, and debarred by the trust deeds from teaching subjects other than Latin and Greek, were often unable to find candidates for their free scholarships, while the demand for modern subjects kept down the number of fee-paying pupils. Other schools again introduced the practice of charging fees for modern subjects, while retaining the fiction that instruction in the classics was free. Thus the Macclesfield Grammar School did not exclude indigent pupils, but "from the expense of books and the little attention paid to the minor branches of learning in comparison with the classics, such children are seldom sent to the Grammar School"; fees were charged for French, writing, and accounts.[1] English, algebra, and Euclid were taught in the higher forms, as well as writing, arithmetic, the use of globes, and ancient and modern geography, while French could be substituted for Greek by pupils not proceeding to the universities or professions. It must be noted, however, that Macclesfield had obtained the power to add modern subjects by an Act of Parliament in 1774.

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[1] Knox, V. *Remarks on the Tendency of Certain Clauses in a Bill now pending in Parliament to Degrade Grammar Schools, etc.* (London, 1821.)

[2] See *Edinburgh Review*, XVI (1810), pp. 330 f.

The beginnings of school reform

The new spirit in the schools. Towards the close of the century, evidences of a revival in some of the great schools were noticeable. There was as yet no widespread movement of the kind inspired in Germany by the neo-humanistic movement. To some extent the increase in the number of pupils may be attributed to a spread of the notion that learning and the position of a gentleman were not incompatible, and to the emergence of a new middle class which sought by its wealth and through education to attain that social status hitherto enjoyed by the upper classes. A new spirit was slowly introduced here and there, without, however, being crystallized into an educational theory by a few outstanding headmasters, and the fortunes of schools, so far as they could be measured by enrollments, were determined not so much by a system, as in France and Germany, as by the strength of individual personalities.

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[1] Carlisle, N. *Endowed Grammar Schools in England and Wales*, I, pp. 120 ff. (London, 1818.) A complete account of the work of the English secondary schools will be found in the two volumes of this report.

Harrow, for example, rose to eminence for a time under Dr. Thomas Thackeray, who was given *carte blanche* on his appointment and who, by his ability as a teacher and by sympathetic understanding of the boys, brought a new spirit into the school during the fourteen years of his headmastership (1746–60). A somewhat similar change took place at Eton under Dr. Edward Barnard (1754–65), who enjoyed a reputation for administrative ability, good taste, and breadth of reading. To the boys he was gentlemanly and friendly, and relied less on corporal correction than personal influence. Dr. Thomas James, who went from Eton to become headmaster of Rugby (1778–94), raised the school from the position of a small country school to one of first rank. James was one of the few teachers of his day who combined classical scholarship with an interest in mathematics, and to scholarship he added ability as a disciplinarian and organizer. He introduced form masters, and through a system of periodical examinations supervised his staff and raised the standards of work among the pupils. He governed, as he said, "by principles of justice, and what I called among the boys (my only law) the Eternal Rule of Right and Wrong.... I have governed, I say, more by maintaining such a sort of character among the boys by my actions than by the terrors of the rod."[1] James took to Rugby the curriculum which had been developed at Eton, and from James this curriculum was taken to Shrewsbury School by one of its greatest headmasters, Dr. Samuel Butler (1798–1836).

Under Butler, Shrewsbury School attracted widespread attention through the remarkable successes at the Universities of the pupils trained under him. He encouraged private reading, and by his good teaching made his pupils believe "that Latin and Greek were the only things worth living for." Through periodical examinations he kept in touch and was familiar with the character of the pupils. Much of his success was due to his sympathetic understanding of the boys, and to his entrusting the government of a large part of their affairs to the prefects.

The progress of Winchester under Dr. William Stanley Goddard (1793–1809) was similarly attributable to the confidence that he won by trusting the boys so that every boy became a gentleman and a boy of honor.

New social factors. There was, however, in the first quarter of the nineteenth century no general confidence in the public schools nor in the grammar schools, all of which, with few exceptions, organized their work on the model of the public schools, particularly Eton and Winchester. The period was one of great unrest. Largely through the influence of George Whitefield and the Wesleys there had been a religious revival, which, although it at first affected mainly the lower and middle classes, was later to influence the upper classes as well, even though evangelical fervor was distasteful to them.

With the close of the eighteenth century the disastrous social effects of the new industrial revolution could be measured, and a new humanitarian spirit was aroused which manifested itself, as soon as the new century began, in movements for factory and educational legislation. The rise of a new middle class of wealth gained in commerce and industry, and the French Revolution, alike combined to fill the air with demands for political reform. The continued recrudescence of riots and rebellions in the schools, even under headmasters of the type described above, gave some point to the feeling of those who were animated by the religious spirit that the schools were centers of irreligion, and to the belief of the humanitarians that the schools developed habits of roughness, oppression, and even vice. Finally, attacks on the exclusively classical character of the curriculum became more general.

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[1] Rouse, W. H. D. *History of Rugby School*, p. 148. (Gerald Duckworth & Co., Ltd., New York, 1898.)

Attacks on the schools. These attacks were led by the *Edinburgh Review*, which began in 1809, and were directed at both the public schools and the Universities of Oxford and Cambridge. The chief defect of the schools was excessive devotion to Latin and Greek, to the exclusion of modern subjects. The classics were regarded as the only test of a cultivated mind, a tradition which engendered prejudices detrimental to any reform movement. The public-school product had scarcely "a notion that there is any other kind of excellence." Yet, according to the *Review*, the only proper criterion for education is its utility for future life. "The test established in the world is widely different from that established in a place which is presumed to be a preparation for the world." Even though a good case might be made out for the retention of the classics for a certain number of scholars, they were not properly taught, and more attention was devoted to them as instruments than as ends; "not what may be read in Greek but Greek itself," had become the aim. A place should be found for modern languages, modern history, experimental philosophy, geography, chronology, and a considerable share of mathematics. "In a plan of education we would give to all knowledge an equal chance for distinction; and would trust to the varieties of human disposition that every science worth cultivation would be cultivated."[1]

In another article which appeared a year later, the attack was renewed and was extended to the fagging system, in which every boy was alternately tyrant and slave, and to the claim that the public schools alone were capable of producing men of eminence.[2] The same conditions were criticized twenty years later in an article devoted chiefly to Eton.[3] "The most precious years are spent, not in filling the mind with solid knowledge; not in training it to habits of correct and patient thought; but in a course of half-studious idleness, of which the only lasting trace is the recollection of misspent time."

Educational experiments. The *Edinburgh Review* despaired of the possibility of reforming the public schools, and suggested the establishment of experiments elsewhere. There were few, however, who were ready to experiment. The Nonconformists, who had been relieved in 1779 from restrictions against the conduct of schools, but who were still excluded from the public schools and the universities, made little of the opportunity open to them. Mill Hill School, established in 1807 by the Congregationalists, was organized on public-school lines; Bootham School, opened by the Quakers in 1823, had an observatory and encouraged the study of English and mathematics, but the main routine consisted of the classics.

One great experiment, which attracted considerable attention, stands out at this period. This was the Hazelwood School conducted near Birmingham and later at Bruce Castle, Tottenham, by Thomas Wright Hill and his three sons; Rowland, the inventor of penny postage, Matthew Davenport, reformer of the criminal law, and Arthur. The father had already kept a school at Hill Top, Birmingham, from 1802, in which he was assisted by members of his family, but it was not until 1818 that a definite plan for the experiment was matured. The authors acknowledge their indebtedness to the Edgeworths.[1] The experiment was begun at the Hazelwood School in 1819, and there conducted until 1833; in 1826 another school was opened at Bruce Castle, Tottenham; in 1833 the Hazelwood School was closed.

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[1] *Edinburgh Review*, October, 1809, XV, pp. 40 ff.

[2] *Ibid.*, August, 1810, XVI, pp. 326 ff.

[3] *Ibid.*, April, 1830, LI, pp. 65 ff.

The essential features of the experiment [2] were the emphasis on self-government, and the breadth of the curriculum. Government was in the hands of the headmaster, teachers, and a committee of boys, elected once a month and meeting weekly to frame the laws affecting the school. The school had a judge, sheriff, keeper of records, an attorney-general, constable, and a jury drawn by lot. The curriculum included orthography, geography, parsing, shorthand, mathematics (arithmetic, algebra, mensuration, trigonometry, and geometry), French, Latin, and Greek; the later account adds other modern languages, fencing, dancing, and music taught by visiting teachers, and lectures in natural philosophy. Everything was taught practically (e.g., "Modern languages are taught as nearly as possible in the same way as a child learns its mother-tongue"). Adequate opportunities and rewards were provided for voluntary labor in a great variety of activities, many of them manual. Emphasis was placed on moral and civic training through social practice. A system of rewards and fines, rather than corporal punishment, prevailed. The motives were love of knowledge, love of employment, emulation, hope of reward, and fear of punishment. Love of knowledge is best developed by an immediate view of utility, as well as by material suitable to the capacity of the pupil, and pleasure in success. "The first object of education should be, we think, to render the after life of the pupil most useful to society and most happy to himself; the next should be to render the passing years of the pupil as happy as possible." The school attracted great attention, especially that of Bentham and his friends; it was the subject of an article in the *London Magazine* in 1824 written by De Quincey, and of another in the *Edinburgh Review* in 1825; a similar school was established in Stockholm.

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[1] It was a review of R. L. Edgeworth's *Essays on Professional Education* that served as the occasion for the attack on public schools in the *Edinburgh Review*, October, 1809, XV, pp. 41 ff.

[2] These are described in *Plans for the Government and Liberal Instruction of Boys in Large Numbers, drawn from experience* (1822), a new edition of which appeared in 1825 (reprinted in 1894) with the substitution of the words "*As Practiced at Hazelwood School*" in place of "*drawn from experience*"; and in *Sketch of the System of Education, Moral and Intellectual, in Practice at the Schools of Bruce Castle, Tottenham, and Hazelwood, near Birmingham* (1833).

Such an experiment was, however, isolated and, except for the possible influence that it might have exercised on Thomas Arnold's conception of the importance of corporate life in the school, little more is heard of it after 1833, although Bruce Castle continued its existence for some time longer. As an example of the critical attitude that prevailed in some quarters at this time, the work of the Hills is significant. The public schools remained unaffected by the ferment and interest in education which prevailed at this time, and which sponsored the establishment of the two great societies, the National Society and the British and Foreign School Society, for the creation of elementary schools; the active movement for the Diffusion of Useful Knowledge; the establishment of University College (1827) and King's College (1828), which were to become constituent parts of the University of London (1836); and the first state grant for education (1833).

Arnold of Rugby. The reform of the public schools could not be forced by any external agency; state intervention was out of the question, and the universities were not yet in a position to exercise any influence. The reform had to come from within. That it was already under way has been indicated above, but it needed to be inspired with a conviction that there was a problem to be solved. It had already been predicted, by one of the supporters of his candidacy for the headmastership at Rugby, that if Thomas Arnold were elected he would change the face of education all through the public schools of England. Arnold was appointed headmaster of Rugby in December, 1828, and was from the first conscious of the task which he was called upon to perform.

> I feel [he wrote] as if I could set to work very heartily and with God's blessing. I should like to try whether my notions of Christian education are really impracticable, whether our system of public schools has not in it some noble elements which, under the blessing of the spirit of all holiness and wisdom, might produce fruit even to life eternal.

As a pupil at Winchester under Goddard he had already sensed the causes of his influence on the character of the school; as a student at Corpus Christi College and as a fellow of Oriel College he had realized the importance of corporate life and the collective spirit; as a tutor at Laleham for ten years preceding his appointment he had opportunities for close contact with and study of boys.

His reform consisted not so much in a departure from as in seizing hold of the best traditions of the public schools. "Another system," he said, "may be better in itself, but I am placed in this system and am bound to try what I can make of it." Hence in the curriculum he retained the classics but he brought to them the new humanistic spirit, which had reached Oxford and may have been inspired by the German revival; the teaching of the classics must be living and vital and introduce the student to history, poetry, philosophy and ethics; through translations he developed good taste in English; it should serve as a training in love of truth and research. The past must be made to throw light on the present.

> The study of languages seems to me as if it was given for the very purpose of forming the human mind in youth; and the Greek and Latin languages, in themselves so perfect, and at the same time

> freed from the insuperable difficulty which must attend any attempt to teach boys philology through the medium of their own spoken language, seem to be the very instruments by which this is to be effected.

The aim of instruction was to cultivate the reason, good taste, and appreciation. Mathematics and modern languages he incorporated in the regular program. So far, however, Arnold contributed little that was new. His work was distinguished perhaps by the emphasis that he placed on ancient and modern history, to which he brought his own enthusiasm and scholarship, and on religious instruction which he inspired with his own zeal and fervor. Although he expressed his appreciation of the value of a knowledge of science, it found no place on the school program, perhaps, because like many of his contemporaries, he regarded the sciences as purely utilitarian and of no value for character training. To the selection of teachers he devoted particular care, and in their selection he looked for activity of mind, interest in work, and common sense combined with sympathy with and understanding of boys, but the essential qualifications were the spirit of Christianity and gentlemanly character. Having appointed them he allowed full freedom and scope for the teacher's personality; and yet, through frequent teachers' meetings, he aimed to develop among them a consciousness of the task before the school as a whole.

Basis of Arnold's success. Arnold's success did not, however, rest so much on the organization of the intellectual side of the school work; here he was surpassed by such men as Butler and Kennedy of Shrewsbury. It was through his intense personality and moral earnestness that he left his mark on the school. Realizing that a school, and especially a boarding school, is a social institution with a corporate life of its own, he imparted to it, partly through the confidence that he reposed in all the boys, and especially through his personal talks with the older boys, something of his own high moral standards.

Unlike Keate of Eton who expected all boys to lie to him, it began to be felt that "it was a shame to tell Arnold a lie — he always believed one." The leadership of the school he entrusted to the older boys, but his prefects, unlike those in other schools, were inspired by him with a consciousness of their position. Corporal punishment was, however, retained in the background, and used not only to punish grave moral offenses but also idleness. Unpromising boys who were likely to be bad influences or incapable of deriving good from the school he expelled. While he sympathized with athletics, he did little directly to encourage them. If Arnold's educational principles may be summarized, his emphasis was on the following aims, stated in order of their importance: (1) religious and moral ideals, (2) gentlemanly conduct, and (3) intellectual ability. His old boys were distinguished at the universities by their manly worth, seriousness of purpose, and gravity.

Arnold died in 1842, but in his brief career at Rugby he had already proved that there were good elements in the public schools, and so won the confidence of the new wealthy middle class; he demonstrated what could be achieved by an individual headmaster enjoying freedom from interference, whether from a state authority or his own governors. There has in recent years developed a tendency to minimize Arnold's influence. That there were other great headmasters among his immediate predecessors and contemporaries may be admitted, but few affected the destinies of other schools than their own. That the reform of classical instruction had already begun in other schools cannot be denied. It is also true that the prefect system existed in other schools, but nowhere had it been consciously incorporated as a definite part of the scheme of moral government and corporate life of a school. No doubt precedents can be found for most of Arnold's educational ideals and practices, and time may have diminished something of the personal influence of his character; the facts that cannot be disproved are the affection and esteem in which he was held by his teachers and pupils, and that a Rugby cult arose immediately after his death. Stanley's *Life of Arnold*, and Hughes's *Tom Brown's School Days*, contributed greatly to capturing popular imagination, even though their estimate of Arnold may to-day be considered somewhat exaggerated. The most lasting testimony to Arnold's influence is the number of new public schools that were established almost immediately after his death, and the number of his colleagues and old boys who were called to headmasterships and teaching positions.[1] Thus the influence of Arnold spread to Harrow through Charles Vaughan, to Marlborough through Cotton and Bradley, to Haileybury through Arthur Butler, to Wellington through Edward White Benson, to Cheltenham through Jex-Blake, to King Edward VI School, Birmingham, through Prince Lee, and was continued in Rugby by Bradley. Ludwig Wiese, who was in charge of secondary education in the Prussian Ministry of Education, was attracted to study the English schools by Arnold's reputation,[2] and John Stuart Mill, in his St. Andrews' *Inaugural Address* (1867), referred to Arnold as the most eminent of "a few practical reformers of school tuition" who "have made a beginning of amendment in many things."

Rise of new schools. Arnold's success and reputation, coinciding as it did with the continued increase of wealth in the middle classes and the spread of a network of railways which facilitated means of communication throughout England, led to the creation of a large number of new schools and the revival of many old institutions. The demand was stimulated, however, not so much by any newly awakened appreciation for the intellectual education that might be found in the schools, but by the popular conception of the new moral and social training that they offered, not entirely unmixed with a regard for these schools for status. One result of Arnold's influence was to check a movement, which had already begun before his advent at Rugby, for the establishment of day schools; these included Liverpool Institute (1825), King's College School (1829), Blackheath Proprietary Schools (1830), University College School (1833), City of London School (1837), and Liverpool College (1840). Interest was now diverted to the establishment of a large number of private schools, mainly by stockholding companies. Among the best known of these schools were Cheltenham College (1841), Marlborough College (1843), Rossall School (1844), Wellington College (1853), Epsom College (1855), Haileybury College and Clifton College (1862), Malvern School (1863), and Bath College (1867). The stock-company schools (or proprietary schools as they were officially designated by the Clarendon Commission (1861–1864), were intended to make boarding schools accessible to those professional and other groups of the middle class that could not afford to pay the fees of the more expensive schools. Canon Woodard founded three Anglican schools (Lancing, Hurstpierspoint, and Ardingly) for the gentry, the upper, and the lower middle class.

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[1] See Stanley, A. P., *Life and Correspondence of Thomas Arnold* (New York, 1887); Findlay, J. J., *Arnold of Rugby* (Cambridge, 1897); Whitridge, A., *Dr. Arnold of Rugby* (New York, 1928).

[2] See Wiese, L. *Deutsche Briefe über Englische Erziehung.* (Berlin, 1852.)

Education, politics, and social needs. The spread of schools of this type, modeled on Rugby or others of the great schools, was far from meeting the needs of the country. Industrial and commerical expansion was moving on apace; the movement for political enfranchisement, of which the Reform Act of 1832 was but an installment, was spreading to the working classes; science was, if not yet remaking the world, certainly remaking industry. The needs of Matthew Arnold's [1] barbarians might be met by the new spirit of the public schools, but the philistine, if not interested in perfection, did want an education that would help him to meet the demands of business life; even the populace or its best elements had begun in the third decade of the nineteenth century to awaken to a recognition of its educational needs. The early work of Dr. Anderson, George Birkbeck, and Lord Brougham had led to the establishment of mechanics' institutes in the industrial centers, and through the Society for the Diffusion of Useful Knowledge (1827) with its cheap publication made reading of useful literature accessible to the working classes. It is not without significance that the Chartists should have included a program for education in their policy, and that the best known and the ablest of their leaders, William Lovett (1800–77), should have proposed a system of lower secondary or intermediate schools for the people, with a curriculum that should include geography, physical and natural phenomena, elements of applied chemistry, design, geology, and mineralogy, the first principles of the most useful trades and occupations, horticulture, and gardening.

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[1] See his *Culture and Anarchy* (1869), chap. III.

Alarm at the irreligious character of the Chartist Movement inspired men like Charles Kingsley and Frederick Denison Maurice to turn their attention to the higher education of the working classes, and to efforts to divert their interest in education from the utilitarian to the moral and humane. Maurice established the Working Men's College in London, in 1854. This institution, like the People's College opened in Sheffield twelve years earlier, demonstrated that there was among the working classes a desire for more education, but many years were to elapse before this demand for educational opportunities was incorporated as a part of a program of national education.

Middle-class education. Of the middle class, those who could not afford to send their children to the secondary schools or who desired a more practical type of education and at a lower cost than could be found there, patronized private schools, both day and boarding. With the character of some of the private boarding schools Dickens has made the world familiar. The chief defects of private schools were an absence of standards, the short periods attended by the pupils, and the interference of their patrons, who with a "low utilitarian spirit and mercenary tone of thought, alien from the influences of literature, and incapable of feeling what is beautiful and sublime in nature and art," stipulated what should be taught.[1] Thomas Arnold had, some fifteen years earlier, already pointed out both the need and the defects of schools of this type and in particular had referred to the poor qualifications of the teachers, the absence of supervision, the intervention of parents, and the intensely utilitarian character of the curricula which militated against sound liberal and civic education.[2]

There could, however, be no doubt about the popular demand for this type of school generally to crown an elementary education with two or three years of studies that were regarded as desirable as a preparation for a business career. Some of the secondary schools, such as the Manchester Grammar School and the Liverpool Institute, established separate departments to provide such a preparation; schools like the Cowper Street Middle Class School, London, were devoted solely to this purpose; and in Manchester the Church Education Society in 1846 established intermediate schools "for Sons of artizans, mechanics, and all other persons in a similar situation in life." The subjects taught in these schools reflect the type of work for which there was a demand; they included English, geometry, mathematics, writing, bookkeeping, drawing, chemistry, physics, mechanics, history, geography, music, and foreign languages. Except in the best schools, these subjects were probably little more than names used to attract a willing clientèle. At best the pupils remained in such schools only up to the age of fifteen.

Science and education. If the recognized secondary schools failed to meet the demands of the public in neglecting to provide a preparation for a life of business, they might with justice urge that such vocational preparation was not their purpose. There was, however, one large department of general human interest, the neglect of which could not be so easily justified. By the middle of the century considerable progress had already been made in the development of the sciences, but in this movement neither the schools nor the Universities of Oxford and Cambridge played any significant part, although a number of chairs were available in the latter institutions, and the Natural Science Tripos was founded at Cambridge in 1851 and the Honours School for Natural Science at Oxford in 1853. Lectures in science were instituted at Rugby in 1849, but even when a laboratory and lecture room were provided, ten years later, the subject was still optional.

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[1] *The Theologian*, London, July, 1847.

[2] In letters to the *Sheffield Courant* in 1832. See Findlay, J. J. *Arnold of Rugby*, pp. 199 f.

Yet the general interest in science now began to be widespread. The mechanics' institutes and working men's colleges devoted some attention to them, and in 1851, through the establishment of the Society of Arts, some attempt was made to organize the study of scientific subjects by means of examinations. The institution of popular scientific lectures was a feature of the Royal Institution almost from its founding, in 1800, and by this means scientists like Humphry Davy and Michael Faraday were able to arouse an interest in scientific progress among the middle classes. To the diffusion of scientific knowledge the literary and philosophical societies, such as that established in Manchester, which numbered John Dalton among its members, contributed to no small degree.

A more definite contribution to scientific education was made by the University of London, which was formed as a federal institution to include University College (1827) and King's College (1828), and which provided for the study of modern subjects from the first. The British Association for the Advancement of Science was founded in 1831 "to bring science into contact with that practical knowledge on which the wealth of the country depends." In 1851 Owens College was opened, in Manchester, where opportunities for the study of science at the university level also were provided, although the College did not offer degrees until 1880, when it was chartered as Victoria University, the first of a series of university colleges and universities that were to demonstrate the value of the sciences in life and industry. In the secondary field the College of Preceptors, established in 1846 to raise the status of teachers in private schools, included science subjects when it began to examine schools in 1853.

Commerce and industry. While these activities were important for the promotion of an interest on the part of the public in the development of science, they were on the whole unorganized. Commerce and industry, however, began to awaken to the importance of science if progress were to be maintained in their fields. In 1836, on the basis of a committee report, the House of Commons voted a fund of £1500 to encourage the fine arts; out of this grants were made for the establishment of a Normal School of Design in London, and aid was given to similar institutions in the provinces. In 1852, a Department of Art was created in the Board of Trade. The Great Exhibition of 1851 demonstrated England's backwardness in the application of science to industry. As a result of this recognition a science division was added to the Department of Art, in 1853. The new Department of Science and Art was moved to South Kensington, and in 1856 was associated with the Education Department of the Committee of Council.

It was soon discovered that progress in the promotion of science instruction was hampered by the lack of properly qualified teachers. To meet this need examinations were instituted for teachers, in 1859, and shortly thereafter were extended to schools and pupils. The usual English practice of stimulating interest by payment on the results of examinations was followed, and, while the number of candidates increased, the effects of this method on the study of science were not altogether salutary. For the time, however, the contribution of the Department of Science and Art was of considerable value, and ultimately it proved an effective measure for securing the introduction of science instruction into secondary schools.

The introduction of scientific studies by indirection was stimulated by the requirements of the newly instituted competitive examinations for the public services. In 1855, on the basis of recommendations of Lord Macaulay's committee, a Civil Service Commission was appointed to conduct competitive examinations for the selection of civil servants for India; a qualifying examination was established at the same time for appointment to the home civil service. The same principle of competitive examinations was applied to the admission of candidates to Woolwich, Sandhurst, and to the Staff College for the army and the School at Portsmouth for the navy. In all these examinations candidates had the opportunity of offering mathematics and experimental and natural sciences. These requirements indicated at least official recognition of the value of the sciences, but some time was to elapse before the secondary schools were affected, and then only to the extent of establishing separate departments to retain intending candidates in the schools instead of resorting, as was usual, to crammers.

Leaders in the new scientific movement. While these practical contributions were made for the diffusion of a knowledge of the sciences, there were not wanting advocates among the leaders of the day to proclaim the importance of the subject for modern civilization. William Whewell had begun, in 1837, to urge the place of mathematics and later science in a liberal and university education. The decade following the middle of the century was marked by an array of brilliant advocacy on behalf of scientific education. The dissatisfaction with the status of the applied sciences generally, aroused by the Great Exhibition of 1851 and the support and interest of the Prince Consort, made the time opportune for the leaders in the field. The year 1854 was particularly marked by three strong appeals in favor of the sciences. In this year Michael Faraday, in a lecture on the *Education of the Judgment*, pleaded the cause of the cultivation of the scientific spirit which was not always guaranteed by booklearning. In the same year John Tyndall lectured on *The Importance of the Study of Physics as a Branch of Education*; Thomas Huxley delivered an address *On The Educational Value of the Natural History Sciences*, a subject to which he frequently returned;[1] and Herbert Spencer entered the field with an article in the *North British Review* championing the superiority of a knowledge of life over any other knowledge whatever. In 1859, the year of the publication of Darwin's *Origin of Species*, Spencer began his series of four essays in the *Westminster Review*, which were published two years later under the title of *Education; Intellectual, Moral, Physical* — one of the most widely read and influential of educational classics.

These lectures and writings derive their importance not so much from their emphasis on the importance of scientific instruction as from their stress on the need of a reorientation of the concept of culture and of liberal education. This thesis is well illustrated by two statements in Tyndall's lectures. "I do not think," he says, "that it is the mission of this age, or of any other particular age, to lay down a system of education which shall hold good for all ages," and, "While thankfully accepting what antiquity has to offer, let us never forget that the present century has just as good a right to its forms of thought and methods of culture as any former centuries had to theirs." Brilliant as the arguments of these leaders were, the battle for the inclusion of the sciences as a part of general education was to continue for at least half a century more. It would not be unfair to state that secondary schoolmasters would have supported the reply of Dr. Moberly of Winchester, in his evidence before the Public Schools Commission, that "except for those who have a taste for physical sciences and intend to pursue them as amateurs or professionally, such instruction is worthless as education." [1] A. F. Leach, who was a pupil at Winchester, did not discover that science was taught in the school until he became an exhibitioner in 1865 and was required to attend a science lecture once a week.

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[1] See his volume, *Science and Education*. (New York, 1894.)

> The lecturer was shared by us with Harrow, and came over once a week.... But the lecture was invariably on this wise. "You see these two pith-balls?" "No, sir," said some wag, with his fingers in his eyes, "I don't see any." Or as a variant somebody would say, "Two, sir? I see three, sir," and so on. There was an examination at the end of the term; but it was a pure farce.[2]

University reform. In the second half of the century the universities began slowly to realize the position that they held in the educational system of the country. Reforms had already begun earlier in the revision of examination statutes, both at Oxford and at Cambridge. The Tractarian Movement brought with it a spirit of seriousness and earnestness that contributed not a little to internal reforms. In 1850, honors schools were established in mathematics, natural science, theology, law, and modern history at Oxford, while Cambridge added triposes in moral and natural sciences to the triposes in mathematics and classics (established in 1824).

The establishment of these examinations had a salutary effect on tutorial activities in the Colleges. There prevailed, however, some fear of "the weakness of yielding to the spirit of

[1] *Report of Her Majesty's Commissioners Appointed to Inquire into the Revenues and Management of Certain Colleges and Schools, etc.*, I, p. 147. (Hereafter cited as *Report of the Public Schools Commission.*)

[2] Leach, A. F. *Winchester College*, p. 468. (Gerald Duckworth & Co., Ltd., New York, 1899.)

the age," and of reform by action of the State. Internal reforms did not prevent a Liberal Government from appointing Royal Commissions in 1850 to investigate the two universities. As a result of the recommendations of these Commissions, legislation was passed to effect reforms at Oxford (1854–58) and at Cambridge (1855). The professorial system was enlarged and new professorships created; restrictions on the award of scholarships and fellowships were removed; opportunities were provided for the admission of non-collegiate students; and the Universities were thrown open to Nonconformists by the abolition of tests for undergraduates and B.A.'s. It was not until 1871 that all tests were removed by a special act.

Supervision of schools. The reform of the Universities affected secondary schools only indirectly. The situation was such that for the most part no governmental body had the right to exercise any authority or influence over the work done in these schools. The Charity Commission, established under the Charitable Trusts Act (1853) to diminish the expense and time involved in securing modifications of trusts or endowments by action of the Court of Chancery, were in the first place limited in their jurisdiction to schools that enjoyed endowments, and in their action to inquire into matters pertaining in general to the administration of such endowments; their concern was mainly with the administrative and financial aspects, rather than with the educational work of endowments; the chief function of the Commissioners was "to protect the property of each charity from waste and loss, and so to preserve it for the purpose to which it was dedicated by the founder." It was not until after 1868, when the Endowed Schools Acts were passed, that the powers of the Charity Commissioners were enlarged to include education functions.

After the middle of the century voluntary agencies sprang up that served in a measure as bodies for setting up standards of instruction. The College of Preceptors, established in 1846 "to promote sound learning and advance the interests of education, particularly in the middle classes," primarily by examining teachers, extended its scope in 1853 and instituted examinations for pupils in secondary schools. The matriculation examination of the University of London served the same purpose. Through the influence of Dr. Temple, headmaster of Rugby, Sir Thomas D. Acland, Reverend J. L. Brereton, and Professor Max Müller of Oxford, the University of Oxford in 1857, and the University of Cambridge in the following year, were induced to set up boards to examine middle-class schools. The acceptance of these examinations was voluntary; the smaller private schools were unable to submit their pupils to these examinations because of the expense, and because they did not retain their pupils long enough to prepare even for the first examination; the better endowed schools felt that they were not included in the category of middle-class schools, and did not make use of the examinations even after the objectionable term "middle class" was changed to "local" examinations. All the examinations provided considerable latitude of choice of subjects "pertaining to a liberal education of youth"; the very latitude of choice rendered the examinations unsuitable to schools that followed the purely classical tradition. Two grades of examinations were generally provided — one for pupils at the age of fifteen, and the other for those at the age of eighteen.

These movements of the middle of the nineteenth century — the awakening to a recognition of the value of the sciences, the reform of the universities, the establishment of examinations which with the expansion of subjects implied a new conception of liberal education — did not affect the large majority of secondary schools. The barbarians, the upper classes, according to Matthew Arnold, were content with a type of school that cultivated the moral and physical sides; nor did the philistines, the middle classes, have any intellectual interests; the English middle classes were in his opinion nearly the worst educated in the world. Arnold had already urged upon the Government to regard the necessities of a not distant future and to "organize your secondary instruction." The headmasters, although enjoying considerable independence, with few exceptions could see no virtue in any subjects but the classics, on which they themselves had been brought up. It soon became obvious that the situation called for state intervention; such action could legally be justified only on the ground that there existed abuses in the administration of the endowments.

Beginnings of state intervention

The Clarendon Commission. In 1861 the Government appointed a Royal Commission, known from the name of its chairman as the Clarendon Commission, to inquire "into the nature of the endowments, funds, and revenues belonging to or received by" certain specified colleges, schools, and foundations, "and into the administration and management of the said colleges, schools, and foundations, and into the system of studies respectively pursued therein, as well as into the methods, subjects, and extent of the instruction given to the students." The institutions specified were the nine great public schools — Eton, Winchester, Westminster, Charterhouse, Harrow, Rugby, and Shrewsbury; all boarding schools; and two day schools, St. Paul's and Merchant Taylors'.

The *Report* of the Commission was published in 1864. The Commissioners proposed to examine the schools; all but two refused to grant permission to conduct such examinations, since they did not see that any useful purpose could be served thereby or because they feared that such permission, if given, would be the entering wedge for Government interference in the future. Unable to secure access to the schools, the Commissioners proceeded to obtain information by means of questionnaires addressed to the headmasters and covering the terms of inquiry, by examining witnesses, and by inviting opinions from various sources. On the instructional side the general conclusions of the Commission were clear. Pupils of capacity and industry were well taught in the classics, although even these showed a lack of accuracy in the elements. With these exceptions, however, the average of classical knowledge among those leaving school was low, but not as low as the average in arithmetic and mathematics, general information, and English. "Of the time spent at school by the generality of boys, much is absolutely thrown away as regards intellectual progress, either from ineffective teaching, from the continued teaching of subjects in which they cannot advance, or from idleness, or from a combination of these causes."[1]

The Commissioners recognized that some improvement had taken place in the preceding thirty years and that the curriculum had been expanded, although the new subjects such as mathematics, modern languages, history, and geography held a very subordinate position (sciences were practically excluded) and were not taken into account for promotions. The difficulties that confronted the schools lay in their inability to secure properly qualified teachers of the new subjects. Although this was not true in the case of mathematics, the status of these teachers was lower than that of classical teachers, while in the case of modern-language teachers the choice lay between employing foreigners, in which case the discipline suffered, and natives whose command of the subjects was often limited. As for history, the opinion of Dr. Moberly, headmaster of Winchester, was probably not uncommon at that time. "I wish we could teach more history," he stated, "but as to teaching it in set lessons I should not know how to do it."[2]

The Commissioners recognized the importance of allowing some latitude in the choice of subjects, but reached the conclusion that "modern departments," such as they found at

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[1] *Report of the Public Schools Commission*, I, p. 26.

[2] *Ibid.*, p. 17.

Marlborough, Cheltenham, Wellington, and the City of London School, were undesirable. They were, in fact, convinced that Greek and Roman languages and literature constituted the best materials available to Englishmen. The arguments of the Commissioners have furnished the justification for the retention of classical studies in English schools down to the present.

> From the regular structure of these languages, from their logical accuracy of expression, from the comparative ease with which their etymology is traced and reduced to general laws, from their severe canons of taste and style, from the very fact that they are "dead," and have been handed down to us directly from the periods of their highest perfection, comparatively untouched by the inevitable process of degeneration and decay, they are, beyond all doubt, the finest and most serviceable models we have for the study of language. As literature they supply the most graceful and some of the noblest poetry, the finest eloquence, the deepest philosophy, the wisest historical writing; and these excellences are such as to be appreciated keenly, though inadequately, by young minds, and to leave as in fact they do, a lasting impression. Beside this, it is at least a reasonable opinion that this literature has had a powerful effect in moulding and animating the statesmanship and political life of England. Nor is it to be forgotten that the whole civilization of modern Europe is really built upon the foundations laid two thousand years ago by two highly civilized nations on the shores of the Mediterranean; that their languages supply the key to our modern tongues; their poetry, history, philosophy, and law, to the poetry and history, the philosophy and jurisprudence of modern times; that this key can seldom be acquired except in youth, and that the possession of it, as daily experience proves, and as those who have it not most readily acknowledge, is very far from being merely a literary advantage.[1]

To the objection that the desirable results are attained only by a minority of the pupils, the Commissioners answered that "it is, and it ought to be, the aim of the public schools to give an education of the best kind, not of the second best"; that experience had not yet proved that another course could be made as good an instrument of mental discipline; and that boys of ordinary capacity, and even the dull and backward, could profit from the presence of highly educated masters and the companionship of those "who are being highly educated," if they could be induced to take pains.

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[1] *Report of the Public Schools Commission*, p. 28.

Administrative and instructional reforms. In their recommendations the Commissioners urged, on the administrative side, the reconstitution of the governing bodies of the schools, a clear definition of the powers of the headmasters, and the organization of school councils consisting of all or representatives of all the assistant masters. On the instructional side, they recommended that "the classical languages and literature should continue to hold the principal place in the course of study," but that to classics and religious instruction there should be added arithmetic and mathematics, one modern language at least (French or German), some one branch at least of natural science (chemistry and physics or comparative physiology and natural history), drawing or music, and "a good general knowledge of geography and of ancient history, some acquaintance with modern history, and a command of pure grammatical English." Provision was also to be made whereby older pupils might drop some of the classical work in order to devote more time to mathematics, modern languages, or natural science, or vice versa. In order to insure a sound preparation an entrance examination should be set in Greek, Latin, arithmetic, and the elements of one modern language, and in order to maintain satisfactory standards among pupils in the schools no boy should be allowed to remain in a school who failed to make reasonable progress.[1]

Whether these recommendations were calculated to remedy the defects that needed amendment is doubtful. The course of study, which appeared sound and valuable in its main elements, was pronounced wanting in breadth and flexibility, "defects which... destroy in many cases, and impair in all, its value as an education of the mind; and which are made more prominent at the present time by the extension of knowledge in various directions, and by the multiplied requirements of modern life." The addition of new subjects might provide for breadth but not for flexibility, and did not furnish an adequate remedy for that other serious defect "that these schools, in very different degrees, are too indulgent to idleness, or struggle ineffectually with it, and that they consequently send out a large proportion of men of idle habits and empty and uncultivated minds." [1]

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[1] *Report of the Public Schools Commission*, pp. 53 f.

Although the Commissioners found much to criticize in the scholastic work of the public schools, they recognized the eminent service that they had performed in the past thirty years in developing a corporate life for the training of character. Besides the service of maintaining classical literature as the staple of English education:

> A second, and a greater still, is the creation of a system of government and discipline for boys, the excellence of which has been universally recognized, and which is admitted to have been most important in its effect on national character and social life. It is not easy to estimate the degree in which the English people are indebted to these schools for the qualities on which they pique themselves most — for their capacity to govern others and control themselves, their aptitude for combining freedom with order, their public spirit, their vigor and manliness of character, their strong but not slavish respect for public opinion, their love of healthy sports and exercise. These schools have been the chief nurseries of our statesmen; in them, and in schools modelled after them, men of all the various classes that make up English society, destined for every profession and career, have been brought up on a footing of social equality, and have contracted the most enduring friendships, and some of the ruling habits, of their lives; and they have had perhaps the largest share in moulding the character of an English gentleman.[2]

The Public Schools Act. This Act was passed in 1868, dealt only with the seven boarding schools, and set up a machinery only for the administrative reorganization of these schools. The governing body of each school was required to draft a statute for the constitution of a more representative governing body, and to submit it to a body of special commissioners appointed by the Act. The statutes, if approved by the commissioners, were to be presented before the Queen in Council for ratification; if not, they were to be referred to a committee of the Privy Council. The newly constituted governing bodies were given power to determine school fees, the numbers of pupils, the curriculum, and religious instruction, and to appoint the headmasters, who in turn had the right to appoint and dismiss the assistant masters. Except for these provisions the schools continued to enjoy full independence from any kind of government interference, except as they came within the purview of the Charity Commissioners.

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[1] *Report of the Public Schools Commission*, p. 55.

[2] *Ibid.*, p. 56.

The Schools Inquiry Commission. The report of the Clarendon Commission drew attention to the need of a wider investigation of the state of secondary education in the country. In 1864, there was appointed the Taunton or Schools Inquiry Commission, to inquire into the education given in schools not included under the terms of reference of the Clarendon Commission, "and also to consider and report what measures, if any, are required for the improvement of such education, having especial regard to all endowments applicable or which can rightly be made applicable thereto."

The Commission issued its *Report* in 1868, after an inquiry which lasted four years and which considered every type of secondary education in the investigation. To eight assistant commissioners was assigned the special task of making a special study of as many districts which were selected as presenting sufficient varieties of population and occupations. In each district a personal inspection was made of different types of secondary schools; the attainments of pupils were tested by examinations; and the wishes of parents were ascertained so far as possible. The Commission, in addition, secured the opinions of witnesses representing diverse points of view — religious denominations, examining bodies, the professions, schoolmasters and mistresses, other groups interested in education, and the legal. Circulars of questions were addressed to the schools. Matthew Arnold reported on the status of secondary education in France, Germany, Switzerland, and Italy, and the Reverend James Fraser, later Bishop of Manchester, conducted the investigation in Canada and the United States.

Secondary education was provided in endowed, private, or proprietary schools; the private schools were ordinary commercial ventures, run for the profit of an individual; the proprietary schools, while also private, were distinguished from them by being foundations established by groups of shareholders, who put the profits back into the maintenance and improvement of their schools.

The Commission's Report. The Schools Inquiry Commission reported that in general the distribution of secondary schools throughout the country was poor, particularly in the more populated areas. There was no clear conception of the purpose of secondary education, nor an adequate differentiation of courses adapted to the needs of pupils leaving at different age-levels. Only a small minority of the schools availed themselves of the standards set by the various examining bodies, and a smaller number still sent pupils up to the universities. The best work was to be found in some of the endowed and proprietary schools, but the general results were unsatisfactory in practically all the subjects that were taught, including Latin and Greek, which constituted the main part of the curriculum in most schools. The private schools were in the main "lamentably unsatisfactory"; they were subject to interference from parents who were interested in an education of an immediate and obviously practical value; they showed as a result a want of solid mental discipline. Bad methods, untrained teachers, and absence of standards were the universal characteristics of the weaknesses found in the schools.

The Commission concluded that secondary schools should give a general education, which "might be fairly considered as likely to be useful to all its scholars, whether as mental discipline or as valuable information." The subjects of a general education were stated as falling under three main heads — language, mathematics, and natural science. The study of a foreign language was advocated because "a boy gains very much in the study of his own language by the study of another." Of the foreign languages considered the preference was given to Latin, for the following reasons — the beauty of the language itself, the fullness and precision of its accidence, and its influence on English language and literature. French and other modern languages could not be strongly recommended because of the lack of an adequate supply of competent teachers.[1] The value of mathematics was admitted, but the inclusion of more than arithmetic was not pressed, partly because instruction was generally found to be bad, and partly because geometry, which might be valuable "as an exercise in severe reasoning, had become synonymous with Euclid, a textbook of doubtful value for beginners. The Commissioners were content with the somewhat non-committal statement that they could "not but believe that mathematics ought to receive more attention than they do, and that if they were properly taught the results attained would soon prove their value."[2] Although the opinions of witnesses were divided, the opposition coming mainly from those who were ignorant of the subject or who doubted its real value as an educational instrument or even its utility, the Commissioners urged the more general introduction of natural science in spite of their recognition of the existing want of competent teachers, suitable textbooks, apparatus, and rooms. The arguments in favor were that "the study of natural science develops better than any other studies the observing faculties, disciplines the intellect by teaching induction as well as deduction, supplies a useful balance to the studies of language and mathematics, and provides much instruction of great value for the occupations of after life."[1] The only other subjects of instruction considered by the Commissioners were drawing, political economy, the educative possibilities of which had been demonstrated by William Ellis, both in his writings and in his schools, and religious instruction, in which the desirability of a conscience clause was recognized.

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[1] Schools Inquiry Commission, *Report of the Commissioners* (1868), I, pp. 22 ff.

[2] *Ibid.*, p. 31.

Administrative organization proposed. That there was room for the improvement of instruction was clear. The value of the *Report* lay, however, in the revelation of the imperative need of a system of secondary education, for both boys and girls, so organized as to be adapted to the demands of the time, to prevent overlapping of effort, and to secure greater definiteness of purpose. For this purpose new machinery of administration was necessary.

The Commissioners recommended the establishment of a central authority by enlarging the powers and membership of the Charity Commission, which, because of its experience, was better qualified than an entirely new body, over which a Minister of Education, if appointed, would preside. The duties of such a Commission would be: (1) to consider schemes for the reorganization of educational endowments, and submit them to Parliament for final approval; (2) to appoint inspectors of endowed secondary schools; (3) to audit accounts of such schools; and (4) to decide whether certain charities reported as useless, mischievous, or for obsolete purposes should be converted to educational uses.

For purposes of educational administration the country should be divided into provinces under authorities consisting of inspectors, and from six to eight members appointed by the Crown from among local residents. The possibility of other types of local authorities, *ex officio* or elected, was considered, but the conclusion was reached that the country was not yet ready for local boards. An exception was suggested in favor of towns with 100,000 population or over, which might have their own boards and, if they chose, remain outside of the jurisdiction of the provincial authorities. The functions of the provincial authorities would be the coördination of secondary education in their areas, and the preparation of schemes before presentation to the central authority. In each school care should be taken to secure the appointment of efficient bodies of governors, of which a representative of the central authority should be a member.

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[1] Schools Inquiry Commission, *Report of the Commissioners* (1868), I, pp. 34 ff.

Such were the arrangements proposed for the external management of secondary education. For the internal management, that is, "all that has to be done to secure or to aid the instruction of the boys in the subjects prescribed by the governors of the several schools," the creation of an examining authority was recommended. Such an examination council should consist of twelve members, two elected by each of the Universities of Oxford, Cambridge, and London, and six to be appointed by the Crown. The duties of the Council would be to examine pupils in the schools, to examine and certificate candidates for the teaching profession, and by means of annual reports to supply all such educational information as would promote the steady improvement of schools.

Importance of developing a national plan. The Commissioners reiterated the importance of organizing a system of schools within the reach of every class of society, and consisting of third-grade schools for pupils leaving at fourteen or fifteen, second-grade schools for pupils up to sixteen, and first-grade schools for pupils up to eighteen or nineteen. The first-grade schools would serve the needs of parents of ample means, or those belonging to the professions who were equally desirous of the best education with a classical basis for their children but needed cheaper schools. The curriculum of these schools would be Greek and Latin, modern languages, mathematics, and natural science; differentiation of courses on a modern-subjects basis, for which a demand was increasing, was not favored because such differentiation seemed to be a mark of peculiarity, would set up rival sets, precluded at that time access to the universities, and in general was made use of by the duller pupils. The second-grade schools were needed for those who were intended for employment at about sixteen; on the question of a suitable curriculum opinions seemed to vary between those who wished to combine a good general, including at least Latin, if not Greek, with a practical education, and those who desired an education of direct practical value in business — English, arithmetic and elements of mathematics, a modern language, and natural science. The third grade of education would serve the needs of smaller tenant farmers, small tradesmen, and artisans who could keep their sons in school to fourteen or fifteen; this group according to some witnesses wanted a clerk's education, "very good reading, very good writing, very good arithmetic;" if any had higher aspirations they wished "to learn whatever their betters learn." The Commission concluded that none of these schools should train for special employment.

In framing this scheme the German system with its *Gymnasium*, *Realgymnasium*, and *Realschule* seems to have been used as a model. While the provincial authorities would have the supervision of endowed schools directly under their charge, private schools, that submitted to inspection and examination, might be registered by the authority according to their grade and enjoy the same privileges as endowed schools of the same grade. The curricula of each school would be prepared by the governing bodies, and approved according to grade by the provincial authorities. The problems of taxation for secondary education and of free education were considered, but it was decided on the first problem that taxes, if levied, should be used for building, repairs, and scholarship, and on the second that English experience was against free education, and that the value of education is better appreciated if fees are paid for it. Whatever method might be adopted, the Commissioners, like Matthew Arnold, stressed the importance of securing the participation of the parents and of the people.

> We are convinced that it is vain to expect thoroughly to educate the people of this country except by gradually inducing them to educate themselves. Those who have studied the subject may supply the best guidance, and Parliament may be persuaded to make laws in accordance with their advice. But the real force, whereby the work is to be done, must come from the people.... But, even more than skilful contrivance, it will need energy; and energy can only be obtained by trusting the schools to the hearty good will of the people.[1]

The same idea was expressed more succinctly in an earlier passage:

> The people perhaps cannot give guidance but they can give life, which is even more valuable than guidance. With the people what we may do may be imperfect; without them, we shall probably do little or nothing.[2]

Character of the schools, as revealed by the inquiry. The *Report* furnished an opportunity of removing the charge that was now frequently made that England was one of the most backward among the leading countries in the matter of secondary education. Foreign observers found much to admire in the organization of the leading schools for corporate life and the formation of character. Thus Ludwig Wiese, who was later to have the direction of secondary education in the Prussian

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[1] Schools Inquiry Commission, *Report of the Commissioners* (1868), pp. 658 ff.

[2] *Ibid.*, p. 76.

Ministry of Education, came to the general conclusion, on the basis of his visit to England in 1850, that "in knowledge our secondary schools are far superior to the English, but the education there given (i.e., as contrasted with instruction) is more efficient because it provides a better equipment for life."[1] Two French observers, reporting to their Ministry of Public Instruction, came to the same conclusion; from the point of view of standards they found no superiority in the English over the French; the best pupils might do better than the French, but for the majority it was easy to escape work.[2] Yet of the chief manifestations of this corporate life a master of Harrow, F. W. Farrar, could write of the pupils in public schools that "they talk cricket, think cricket, dream cricket, morning, noon, and night; it is hardly surprising to find many who complain that this mania for muscularity has its share in the hunger-bitten poverty of our intellectual results." On the intellectual side Farrar concluded that the system of exclusively classical education, which neglected all the powers of some minds and some of the powers of all minds, was a deplorable failure. "On the theory of the convertibility of force, something, I suppose, must come of the energies expended on our ordinary teaching; but at present a large portion of them seems to me as entirely wasted." A considerable number left the schools at the age of eighteen or nineteen

> not only ignorant of history, both ancient and modern, ignorant of geography and chronology, ignorant of every single modern language, ignorant of their own language, and often of its mere spelling, ignorant of every single science, ignorant of the merest elements of geometry and mathematics, ignorant of music, ignorant of drawing, profoundly ignorant of that Greek and Latin to which the long ineffectual years of their aimless teaching have been professedly de-

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[1] Wiese, L. *Deutsche Briefe über Englische Erziehung*, p. 7. (Berlin, 1852.)

[2] Demogeot, J., and Mantucci, H. *De l'Enseignement Secondaire en Angleterre et en Ecosse. Rapport addressé à son Excellence M. le Ministre de l'Instruction Publique*, p. 587. (Paris, 1868.)

voted; and, we may add, besides all this, and perhaps worst of all completely ignorant of, altogether content with, their own astonishing and consummate ignorance.[1]

In the same year that this indictment of the secondary schools appeared, Farrar edited a volume of *Essays on a Liberal Education* in which the claims of various subjects in a liberal education were discussed.

The Endowed Schools Act of 1869. Criticisms were in the air; the *Reports* of the two commissions (the Clarendon and the Taunton) merely served to bring them to a focus. The mild practical results of the first have already been discussed; the effects of the Schools Inquiry Commission's *Report* were equally mild and indirect. In 1869, when the Endowed Schools Act was passed, it was notable that the major recommendations of the Commission had been omitted; a bill, introduced at the same time for the registration of teachers and the examination of schools, was dropped. Three Endowed Schools Commissioners were appointed to draft schemes for the better application of educational endowments, but the seven public schools, endowed elementary schools, recently endowed schools, schools connected with cathedrals and some special schools were exempted from their action. Schemes prepared by the Commissioners were to be approved by the Education Department before being submitted to the Queen in Council; when so approved, schemes acquired the force of law; provision was made for petition against the action of the Commissioners. By the Endowed Schools Act, 1874, the powers of the Commissioners were transferred to the Charity Commissioners, after 235 schemes had been approved.

Why the opportunity was lost. The opportunity for organizing secondary education on a national basis was lost. According to Matthew Arnold, the reason

> why no effective remedy is applied to this serious evil (i.e., the in-

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[1] *Museum of Education*, IV, 1867, pp. 39 f.

adequacy of secondary education) is simply, as I have often said, because the upper class amongst us do not want to be disturbed in their preponderance, or the middle class in their vulgarity. Even though these prejudices are unconscious, the result is just as hurtful.[1]

There were other forces also at work besides class interests. The country was not only not ready for, but heartily distrusted, any form of central direction in education, least of all secondary which was still dominated by class interests; nor was there yet an adequate system of local government which might be entrusted with the provision and administration of education (school boards for elementary education were not established until 1870); the schools would not submit to any hard and fast system of grading; and finally, the public as a whole was not yet clear as to the meaning and purposes of secondary education, while the majority of those engaged in teaching had closed minds in the matter of the curriculum.

Individualism of English reform. The mere suggestion of government interference contained in the recommendations of the Schools Inquiry Commission served as a rallying-point for the headmasters of the leading public and endowed schools. In 1869, the Headmasters' Conference was organized, mainly through the influence of Edward Thring of Uppingham. The Conference, the first attempt in England to secure coöperation among the leaders of "a profession, involving experience and practice of the most varied and intricate kind," represented those schools that had least perhaps to gain from governmental action; they were essentially class schools and were closely associated with the Universities of Oxford and Cambridge, which drew the majority of the students from them. To meet the threat of a central examining council the headmasters of these schools urged Oxford and Cambridge to establish a Joint

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[1] Arnold, M., in Ward, T. H. *Reign of Queen Victoria*, II, p. 277. (London, 1887.)

Board to inspect and examine schools, and to grant certificates to successful pupils.

Such a Board was created in 1873, and exercised a significant influence on the progress of secondary education in England. The doctrines of *laissez-faire* and individualism were too deep-rooted in English education to permit of the willing acceptance of state interference. At no time, indeed, were there lacking instances of the brilliant success of headmasters who, utilizing to the full the independence that they enjoyed, demonstrated what could still be accomplished without state control and established what is still the strongest and finest tradition in English education. Thus Edward Thring succeeded in converting the small country grammar school of Uppingham with twenty-five pupils into one of the leading schools of England, limited to an enrollment of three hundred and fifty pupils, only on the principle that the headmaster of a school must know each pupil as an individual. Believing that "Whatever we may say or think, the almighty wall is, after all, the supreme and final arbiter of schools,"[1] Thring devoted himself to making the school a thing of beauty. Convinced that "the great question is how to give to each boy in every school a fair chance," he provided opportunities for a variety of optional subjects, outside of the ordinary curriculum, of which every boy had to choose two — French, German, chemistry, drawing, carpentry, and turning. He was the first to promote the cultivation of music; the first to provide a public school with a gymnasium, laboratories, workshops, a garden, and an aviary; and the first to develop a sense of social obligation through the association of the school with missions, at home and abroad.[2] Almond of Loretto, who put into effect his faith that "the laws of physical well-being are the laws of God"; Edward Bowen, who, as assistant master at Harrow, humanized the classroom relations between pupils and teachers; F. W. Walker, who, as High Master of the Manchester Grammar School (1858–77) and of St. Paul's School (1877–1905), raised two old foundations from their decline to the foremost rank among secondary day schools in buildings, equipment, numbers, and modernized curricula — each perpetuated the English tradition whose vitality has been continued to the present and exemplified by such men as F. W. Sanderson of Oundle, J. Lewis Paton of the Manchester Grammar School, and Cyril Norwood of Marlborough and Harrow.[1]

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[1] In an *Address to the Teachers of Minnesota.* (1886.)

[2] See Parkin, G. R. *Edward Thring.* (London, 1900.)

The problem still unsolved. Valuable as such individual contributions of headmaster and teachers have always been in England, they did not affect the main problem which was pressing in the last quarter of the nineteenth century — the need of an organized system of secondary education. The work of the Endowed Schools Commission and of the Charity Commission was effective, but slow and restricted to endowed schools more than fifty years old. By 1894 schemes had been framed and approved for 902 schools of the 1448 endowments subject to the Endowed Schools Acts. The problem of providing a due supply of secondary education adapted to the growing needs of the country, and differentiated according to individual abilities and capacities, still remained unaffected.

New factors working for reform

Social conditions toward the end of the nineteenth century. The last twenty-five years of the nineteenth century saw England entering on a new stage of her development. It seemed as though the voices of her prophets — Carlyle, Ruskin, Frederick

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[1] See How, F. H., *Six Great Schoolmasters* (London, 1904); Mumford, A. A., *Manchester Grammar School* (London, 1919); MacKenzie, R. J., *Almond of Loretto* (London, 1905); Bowen, W. E., *Edward Bowen, a Memoir* (London, 1902); Wells, H. G., *The Story of a great Schoolmaster* (New York, 1924); *Sanderson of Oundle* (New York, 1923).

Denison Maurice, William Morris, Kingsley, and Dickens — were at last to find an audience. A new social conscience seemed to be around, which even governments committed to the doctrine of *laissez-faire* could not ignore. The jubilee of Queen Victoria, in 1887, while significant in its celebration of the intense loyalty throughout the Empire, was also accompanied by much searching of heart and an examination of what had been and of what still remained to be accomplished in the home country itself. The franchise, extended in 1867 and in 1884, carried with it the obligation of "educating the masters" still further than had been dreamed of in 1870, when the Elementary Education Act was passed. The work of Charles Booth on *Life and Labour in London*, the activities and manifestoes of the Fabian Society, the opening of social settlements among the poor, and a succession of serious strikes helped to concentrate attention on social evils and defects that needed to be corrected.

Governments addressed themselves to legislating increasingly on matters affecting the social well-being of the country — health, housing, and labor conditions; the enactment of the Local Government Act for the first time provided an adequate machinery for local administration, and through the elected councils added another means for the political education of the public to the school boards created in 1870; free public libraries and art galleries provided and maintained out of local rates were established; labor began to organize for political action, and the first halfpenny newspaper was established in its interests; campaigns against intemperance began to be widespread; trade and commerce ceased less and less to be a stigma as members of the upper classes began to engage in them. The rapid emergence of Germany, after 1870, as a power to be reckoned with politically and economically provided an object lesson, and compelled the recognition of the meaning of education for the continuance of national prosperity and preëminence in the industrial and commercial fields. The provision of an adequate system of education could not long be postponed.

Elementary education and university extension organized. More direct than the force of social developments was the influence of the educational advancement itself. With the enactment of the Elementary Education Act of 1870 and the extension of national aid for elementary education, even though based on the vicious system of payment by results, considerable progress had been made in disseminating somewhat more than the rudiments among the masses. The spread of evening schools and the gradual extension of the scope of their work furnished an avenue for a partial equivalent of secondary education. The establishment of the university extension movement, tentatively begun in 1867 and officially recognized by Cambridge in 1873, the University of London in 1876, and by Oxford in 1878, gave the middle and working classes some conception of higher education. In the older universities, the reforms that had begun after the appointment of the university commissions in 1852 made access possible for an increasingly larger body of students, while the establishment of new colleges of university rank for men and women in various parts of the country provided facilities for higher education more generally available.[1]

In the absence of secondary-education facilities, many of these institutions had at first to give preparatory work themselves.

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[1] To the Universities of Oxford, Cambridge, and Durham, which expanded by affiliation to it of the College of Medicine and the College of Physical Science located at Newcastle-on-Tyne, there were added new institutions of university rank, though not always at first degree-granting. Among these were the University of London; Hartley College, Southampton (1859); Owens College (1851) which with Yorkshire College (1874) became the Victoria University in 1880, joined by University College, Liverpool, in the following year; the University of Wales, organized out of three existing colleges in 1893; Firth College, Sheffield (1875); Mason College, Birmingham (1880); and the University Colleges at Bristol (1876), Nottingham (1881), Reading (1892), and Exeter (1893). Government aid began to be given to some of these institutions in 1889. The provision of higher education for women, whether in independent or in existing institutions, belongs to the same period of expansion.

At the same time the new and the older universities and colleges were, together with a number of independent examining bodies, setting up standards of attainment for the secondary schools and at the same time pointing to the need of more secondary education.

Organizations of teachers. Another important factor in defining the secondary-school problem was the organization of the teachers in them. The establishment of the Headmasters' Conference, in 1870, has already been mentioned; it was followed soon by the organization of the Association of Headmistresses (1874); the University Association of Women Teachers, and the Private Schools' Association (1883); the Association of Assistant Mistresses (1884); the Teachers' Guild (1885); the Incorporated Association of Headmasters (1890); the Association of Assistant Masters, Association of Headmasters of Preparatory Schools, and the Association of Headmasters of Higher Grade Elementary and Organized Science Schools (1892). All these societies provided the opportunities that had hitherto been lacking for the interchange of experience and for the organization of professional opinions and programs.

Post-elementary education developed. In the last decade of the nineteenth century the problem of secondary education had passed beyond the scope of the public and endowed schools. The more progressive of the school boards which had been established in 1870 had begun to make provisions for ex-standard pupils, that is, those who had completed the requirements of the elementary-school code, and could continue their education up to the age of fifteen. Ex-standard classes were organized either in the elementary schools or in higher-grade schools, and the curriculum was expanded to include such subjects as history, grammar, French, mathematics, and science. In most cases the emphasis was placed on the science subjects, in order to comply with the conditions for obtaining grants from the Science and Art Department. Since 1872, this Department had encouraged the creation of organized science schools, which, whether as day or evening schools, gave a continuous and systematic course of training in science of three years' duration. The progress of higher grade and organized science schools was slow until 1890, but thereafter began to increase rapidly, although not yet on a national scale. These schools virtually supplied the place of the "third-grade" schools, which had been recommended by the Endowed Schools Commission, but they were open to criticism for their tendency, determined by the source of their grants, to stress the scientific at the expense of the literary subjects. There was some danger also that the same bias would be introduced in those secondary schools which, in growing numbers, sought to qualify for the grants of the Science and Art Department.

A local administrative unit created. One of the serious difficulties in the way of a systematic organization of secondary education lay in the absence of areas of an adequate size for its administration. This obstacle was to some extent removed by the Local Government Act which, in 1888, set up the county councils for administrative purposes. In 1889, these authorities were made responsible for the administration of the Technical Instruction Act of that year. With the growing competition from Germany and the United States, and on the occasion of such opportunities for comparison as were offered by the French Exhibition of 1878, the inadequacy of the provisions for technical education began to impress itself on the country. A Royal Commission appointed in 1880 reported on the subject, four years later, and urged, among other recommendations, that local authorities be permitted to provide both technical and secondary schools. The National Association for the Promotion of Technical and Secondary Education, organized in 1886 with Sir Henry Roscoe, Arthur Acland, and Thomas Huxley as the moving spirits, undertook a campaign to stimulate public opinion and to diffuse information. The aim of the Association was to promote education for the improvement of the capacity of all those upon whom the industries of the country depended, that is for the leaders in commerce and industry.

The efforts of the Association culminated in the passing of the Technical Instruction Act in 1889, which permitted councils of counties and county boroughs to supply or aid in supplying technical instruction, to establish committees for that purpose, and to levy a rate limited to a penny in the pound. The broad definition of technical instruction was so inclusive as to cover secondary education of a modern character. The localities were thus empowered to give assistance to secondary schools under certain conditions, either directly or in the form of scholarships and prizes. Few authorities availed themselves of the provisions of the Act until the Local Taxation (Customs and Excise) Act, 1890, placed at the disposal of the Government a large sum annually out of the customs and excise duties. This fund, intended originally to be paid as compensation to publicans, came to be known as "whiskey money," and had a tremendous influence in encouraging localities to carry out the purposes of the Technical Instruction Act.[1]

The organization of secondary education in Wales points the way. The problem of an adequate provision of public secondary education was still far from being settled. It remained for Wales to point the way to a solution. An active campaign, which had been inaugurated in 1846 by Sir Hugh Owen, had resulted in the establishment of the Bangor Normal College in 1852, of the University College at Aberystwyth in 1872, and of a similar institution at Cardiff in 1883. Proposals were made unsuccessfully in 1879 to secure government aid for higher education, and in 1881 a Committee of the Education Department was appointed under Lord Aberdare to inquire into secondary and higher education in Wales. Two results were achieved as a result of the Commission's *Report* — state aid for higher education and the enactment of the Intermediate Education Act in 1889 to facilitate the supply of intermediate and technical education, and the provision of funds by rates and of state grants to supplement deficiencies in the rates. Intermediate education was defined as

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[1] Acland, A. H. D., and Smith, H. Llewellyn. *Studies in Secondary Education.* (New York, 1892.)

> a course of education which does not consist chiefly of elementary instruction in reading, writing, and arithmetic, but which includes instruction in Latin, Greek, Welsh, and English language and literature, modern languages, mathematics, natural and applied science, or in some such studies, and generally in the higher branches of knowledge.

Joint education committees were set up in every county and county borough, three members appointed by the councils and two by the Lord President of the Privy Council; the duty of the committees was to prepare schemes for their counties, alone or in coöperation with neighboring localities, taking into consideration existing endowments that could be made available and the amount of rate to be levied on their recommendation by the councils. Schemes were subject to approval by the Charity Commission. State grants were made by the Treasury on the basis of annual inspection and reports. The administration of schools was left to the governing bodies of the schools on which the county councils were to be adequately represented. Some degree of harmony in the operation of the system was secured by the attendance at the meetings of the committees of an Assistant Charity Commissioner. A number of conferences of the committees led to the proposed establishment, in 1892, of the Central Welsh Board for Intermediate Education to coördinate the work of the committees and to inspect and examine schools. The establishment of the Board was delayed for various reasons until 1896, but in the mean time the organization of secondary education proceeded satisfactorily under the supervision of the Charity Commission.[1]

The English problem. England was now confronted more seriously with the problem of organizing her secondary education than at the time of the Schools Inquiry Commission's investigation. The expansion upwards of the elementary schools, the grants of the Science and Art Department, and the operation of the Technical Instruction Act, while they supplemented the provision of facilities for secondary education, only tended to increase the confusion and chaos of an unorganized and unarticulated supply. The most serious question was the extent to which the State might intervene, a policy which at once aroused the traditional fear of such state intervention, bureaucracy, standardization, and changing policies of changing Ministries. Huxley's advocacy of "an educational ladder from the gutter to the university" was beginning to find widespread adherence.

In 1893, the Bradford Independent Labor Party passed resolutions to the following effect: (1) all public education should be free; (2) education generally should be under the control of some central representative body, in order to secure cohesion of the whole; and (3) maintenance scholarships should be provided for poor children of proved ability, in order that as little of the Nation's capacity as possible may run to waste. In one of the papers read at a Conference on Secondary Education in England in 1893, at which for the first time representatives of all types of institutions giving secondary education met at Oxford, the need was stressed of an adequate supply of secondary schools within reach of the population at reasonable fees under public management, and of recognizing as part of the system all schools, public and private, which gave continuous guarantees of efficiency.

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[1] See Acland and Smith, *op. cit.*, chap. III; Archer, R. L., *Secondary Education in the Nineteenth Century*, chap. XI (Cambridge, 1921); Balfour, G., *The Educational Systems of Great Britain and Ireland*, pp. 186 ff. (Oxford, 1903).

The Bryce Commission of 1894. Following the failure, in 1892, of a bill enabling counties to organize secondary education, the Government appointed a Commission, in 1894, under the chairmanship of Mr. (later Viscount) Bryce, with wider terms of reference than any of the previous Commissions. The Bryce Commission, which for the first time included three women among its sixteen members, was appointed

> to consider what are the best methods of establishing a well-organized system of secondary education in England, taking into account existing deficiencies, and having regard to such local sources of revenue from endowments or otherwise as are available or may be made available for this purpose and to make recommendations accordingly.

The Commission followed the usual procedure of obtaining information in writing, hearing witnesses, making direct investigations through their Assistant Commissioners, and securing information on the status of secondary education in foreign countries (Austria-Hungary, Belgium, France, Germany, Holland, Spain, Sweden and Norway, Switzerland, and the United States).

The Commission found a variety of supply of secondary education which was wholly unintegrated and overlapped. A similar condition was found in the uncoördinated efforts of the several public authorities that made this supply possible — the Science and Art Department, the Charity Commission, and only slightly the Education Department representing the State, and the county and county borough councils and school boards representing the local authorities. The conditions of the state grants of the Science and Art Department, and of the local participation of the Technical Instruction Act, tended to encourage bad methods of instruction, cramming, and lopsidedness, with an emphasis on science, art, and technical subjects and the danger of neglecting the literary or humanistic side. In the endowed schools there had been an enlargement and improvement of the curriculum, the classics were better taught, and a place had been found for modern languages and sciences.

Problems the Commission faced. The outstanding problems that confronted the Commission were those of formulating a definition of secondary education, and of organization. Although the first of these was not directly within the terms of reference, some definition was inevitable.

> In every phase of secondary teaching, the first aim should be to educate the mind, and not merely to convey information.... The largest of the problems which concern the future of secondary education is how to secure, as far as possible, that in all schools and in every branch of study that pupils shall be not only instructed but educated.[1]

The Commission found that the distinction between cultural and practical subjects was breaking down. Secondary education

> is the education of the boy or girl not simply as a human being who needs to be instructed in the mere rudiments of knowledge, but it is a process of intellectual training and personal discipline conducted with special regard to the profession or trade to be followed.

Culture is not an end in itself:

> It makes the private person of more value to society and the state. All secondary schools, then, in so far as they qualify men for doing something in life, partake more or less in the character of institutes that educate craftsmen.... Secondary education, therefore, as inclusive of technical, may be described as education conducted in view of the special life that has to be lived with the express purpose of forming a person to live in it.[2]

The second of the problems to be answered was "How can the sporadically created and unorganized secondary education of England be organized into an efficient and satisfactory system?" It was round this problem that the recommendations of the Commission were centered.[1] The Commission recommended the creation of a central authority as a government department, under a Minister responsible to Parliament and assisted by a permanent secretary. The duty of the authority would be to discharge functions of common concern to the whole country, which, without inducing uniformity, would preserve a free and spontaneous variety and an open field for experiment and enterprise. Its main task would be to secure harmony and coöperation among various agencies, through inspection, publication of information, furnishing of advice, issue of regulations, hearing of appeals in cases of conflicts, and the drafting of rules for the application of public funds. The three existing but hitherto independent authorities, the Charity Commission so far as its educational functions were concerned, the Science and Art Department, and the Education Department, would be merged in the central authority.

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[1] Royal Commission on Secondary Education, *Report of the Commissioners*, I, p. 80. (London, 1895.)

[2] *Ibid.*, pp. 135 f.

The Commission's recommendations. In order to meet the opposition to the creation of an executive department of Government for educational purposes, the Commission recommended the creation of an Educational Council of twelve members — one third appointed by the Crown; one third by the Universities of Oxford, Cambridge, London, and Victoria; and one third selected by the other members from among experienced members of the teaching profession. These members might further add other members by coöptation. The Educational Council would not relieve the Minister of responsibility for general policy and the control of administrative details, but would act in an advisory capacity.

For purposes of local administration, local authorities were to be established in the counties and county boroughs. The duty of a local authority would be to make adequate provision for secondary education, coördinate existing schools, administer funds from local rates and state grants, prepare schemes for endowed and public schools, and make provision for the inspection of schools.

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[1] Royal Commission on Secondary Education, *Report of the Commissioners*, I, pp. 256 ff.

Private schools of any kind, whether proprietary or run for profit, would be eligible for recognition as supplying efficient secondary education under certain conditions, such as sanitary buildings, suitable apparatus and equipment, an adequate body of qualified teachers, a suitable and adapted curriculum, and appropriate tuition fees. Such schools should be open to inspection and should submit their pupils to examinations. Under these conditions certain privileges would be open to the schools.

The Commission again urged the registration of teachers, which had already been advocated for more than a quarter of a century and on which unsuccessful efforts had been made to secure legislation. Registration was desirable as an official test and standard of professional efficiency. The Commission recommended that such a register should be administered by the Educational Council, and that admission should be based on the possession of a degree or a certificate of attainments granted by a university or some other recognized body, and on a certificate or diploma of knowledge of the theory and practice of education similarly obtained. Existing teachers might be registered on the basis of at least three years of experience. The Commission emphasized the importance of professional preparation.

So far as curricula of secondary schools were concerned, the Commission refrained from recommending definite models. It merely laid down general principles. Besides that literary and humanistic course of instruction "based upon the languages of classical antiquity, which tradition has established among us, and whose incomparable value no thoughtful man denies," ample provision was to be made for instruction in science beginning with natural history and other sciences of observation and working up to chemistry and physics, for mathematics, for the chief languages of modern Europe both for their linguistic training and as the key to noble literatures, and for practical arts such as applied mechanics and agriculture.

> Each of these three elements above named has vigorous forces behind it. Not merely tradition but the influence of imagination and philosophy command the first. The second is strong in the pride of its recent triumphs and still swift advances. The sense of its practical utility in days when industrial and commercial competition grows constantly more severe is enough, perhaps more than enough, to secure its rightful place for the third.[1]

Finally the Commission, besides stressing the importance of general and special training for life, emphasized the claims of an education for leisure.

> More, much more, than is now done might be done not merely to fit such boys and girls for the practical work of their respective future careers, but to make them care for knowledge, to give them habits of application and reflection, to implant in them tastes which may give them delights or solaces outside the range of their work-a-day lives.... In an age of increasing leisure and luxury, when men have more time and opportunity for pleasure, and pursue it more eagerly, it becomes all the more desirable that they should be induced to draw it from the best sources. Thus it is not merely in the interest of the material prosperity and intellectual activity of the nation, but no less in that of its happiness and moral strength, that the extension and reorganization of secondary education seem entitled to a place among the first subjects with which social legislation ought to deal.[2]

The Board of Education established. It was clear that the first task that confronted the country, after the Bryce Commission had published its *Report,* was the establishment of a central body to coördinate the various educational efforts distributed between several authorities. In 1899, the Board of Education Act was passed, creating a single authority to superintend educational matters in England and Wales. To the Board of Education, consisting of a President, the principal Secretaries of State, the First Commissioner of the Treasury, and the Chancellor of the Exchequer,[1] were assigned the functions of the Education Department, the Science Department, and, after October 1, 1902, of the Charity Commission in so far as it was concerned with education. Provision was made at the same time for the establishment of a Consultative Committee of eighteen members, men and women, holding office for six years and appointed by Order in Council, to advise the Board on any matters referred to them and to draft the regulations for a Register of Teachers. Inestimable service to education in general, and to the Board of Education in particular, was performed by an Office of Special Inquiries created in 1896, and placed under the direction of Mr. (now Sir) Michael E. Sadler; through its *Special Reports* this department gradually built up a body of invaluable information on education at home and abroad.

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[1] Royal Commission on Secondary Education, *Report of the Commissioners*, I, p. 285.

[2] *Ibid.*, pp. 327 f.

The Bryce Commission had recommended the appointment of local authorities to provide and supervise secondary education in their areas. Before this recommendation could be put into effect an incident occurred which indicated the need of local authorities with broader powers than had been suggested, in order to eliminate overlapping and waste of effort and to coördinate all educational facilities locally. In 1899, Mr. Cockerton, a government auditor, refused to sanction expenditures of the London School Board on education other than elementary, and on the instruction of persons who were not children. The Courts confirmed this decision, which meant that ambitious local authorities were stopped from providing more than elementary education except under the Technical Instruction Acts. It was now obvious that any new enactment that might be proposed must regularize the situation.

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[1] This is the legal constitution; the Board in practice never meets.

National organization at last developed

The Education Act of 1902. In 1902 the Education Act was passed, which was the first installment towards the organization of something approaching a national system of education in England. The Act recognized four administrative areas for educational purposes: the county, the county borough or cities with a population of more than 50,000, municipal boroughs or towns with a population of more than 10,000, and urban districts (corresponding to the New England town) with a population of more than 20,000. The councils of the first two areas were made the local education authorities for all branches of education; the councils of the smaller areas were constituted the local education authorities for elementary education only, although they retained the right, under the Technical Instruction Acts, to levy a rate not exceeding 1*d*. in the pound for higher education, which could be used to supplement the provisions for secondary education made by the counties in which they were located. Each of the larger authorities was required

> to consider the educational needs of the area, and take such steps as seem to it desirable, after consultation with the Board of Education, to supply or aid the supply of education, other than elementary, and to promote the general coördination of all forms of education. In exercising their powers under the Act, a council shall have regard to any existing supply of schools or colleges, and to any steps already taken for the purposes of higher education under the Technical Instruction Acts.

The functions of the local education authorities were better and more fully defined in the Education Acts of 1918 and 1921, as follows:

With a view to the establishment of a national system of public education available for all persons capable of profiting thereby it shall be the duty of the council of every county and county borough so far as their powers extend to contribute thereto by providing for the progressive development and comprehensive organization of education in respect of their area, and with that object to submit to the Board of Education when required by the Board schemes showing the mode in which their duties and powers under the Education Acts are to be performed and exercised, whether separately or in coöperation with other authorities.

The task was not simple, either for the Board of Education or for the local authorities. Secondary education had grown up chaotically and without system or organization; there existed a variety of standards set up by multifarious examining boards; in elementary education and in such education of a secondary level as had grown up under the Science and Art Department, freedom and elasticity had been restricted by a pernicious system of payment by results; there was considerable suspicion of a central authority, and a new tradition of coöperation between the Board of Education and the local authorities had to be built up instead of control and domination; vested interests had to be safeguarded, and the incubus of social class distinction had to be faced; finally, care had to be taken that the extension of facilities for secondary education should not be accompanied by any lowering of standards. A census of all schools in England between elementary schools and universities, undertaken by the Education Department in 1897, revealed an absence of any sound working definition of secondary education. In the 6209 schools that called themselves secondary, two thirds of the pupils, boys and girls, were under fourteen, about one fifth were between fourteen and sixteen, and about one tenth over sixteen.

Surveys of secondary education. The responsibility for organization and coördination was thus shared by the Board of Education for the country as a whole, and by the local education authorities in their respective areas. The latter in many cases immediately began to conduct intensive surveys of all existing provisions that might properly be regarded as secondary in character. At least fifty such surveys were made; a number of these conducted by Sadler were models of their kind.[1] All the reports emphasized the need of a systematic organization of secondary education, effectively articulated with elementary and higher education. They stressed the importance of an extended and diversified curriculum and the contribution to the community and the nation that might be expected from the secondary schools, provided that adequately prepared and suitably remunerated teachers were secured, for "ineffective or incompetent teachers in gorgeous buildings are as costly a form of waste as would be handsome tramcars on expensive lines without electric power to move them."[2] Secondary education must be prolonged and general in character, rather than vocationally specialized, for:

> What a school can do is not create business ability or show short cuts to commercial success, but quicken the imagination, train the faculties of the mind, and lay the foundations of manly character. It cannot do these things quickly. The best education is slow. It needs time for its work. It cannot be hurried. "Growth is slow when roots are deepest."[3]

The great task confronting English secondary education was pointed out to be modernization and adaptation, while retaining the peculiar qualities of its tradition.

> We in England have got a far sounder conception of the *all-round* activities of secondary school life than is prevalent on the continent

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[1] These include *Report on Secondary and Higher Education in Hampshire* (Portsmouth, 1904); *Report on Secondary and Higher Education in Exeter* (Exeter, 1905); *Report on Secondary and Higher Education in Derbyshire* (London, 1905); *Report on Secondary and Higher Education in Essex* (Chelmsford, 1906); *Report on Secondary Education in Liverpool* (London, 1906).

[2] Sadler, M. E. *Report on Secondary and Higher Education in Essex*, p. 42.

[3] Sadler, M. E. *Report on Secondary Education in Liverpool*, p. 12.

> of Europe. Our best secondary school teachers see much more of their pupils outside the classroom than the French or German teachers do. On what may be called the pastoral side of their work, the teachers in good secondary schools in England excel all others in the world. Our schools are not manufactories of a purely intellectual fabric. The elder pupils in our schools learn to bear responsibility and receive a valuable training in administration through having to bear part in the government of others. Organized school games teach pluck and *esprit de corps*. No secondary schools in Europe are regarded with so much affection by those who are receiving or have received their education in them as are the good English schools.[1]

Hence the aim of secondary education was not limited to the intellectual result alone ("an alert and adaptive intelligence, which has been trained to concentrate its attention, to think consecutively and candidly, to weigh evidence and to draw accurate conclusions"), but must include the training of will power "strengthened by sound training of the body and by the habit of working with and for others."

The organization of secondary education. The reports and surveys thus prepared the way for the action of the Board of Education, which was confronted with the task of defining secondary education and furnishing general advice and leadership. These functions the Board has exercised by statements of the conditions under which the grants voted annually by Parliament for purposes of secondary education are to be distributed. The *Regulations for Secondary Schools* have been issued annually, since 1903. In order to be pronounced efficient for purposes of the grant a school must be open to inspection, must have sanitary buildings and adequate equipment, must have a staff of teachers sufficient in number and qualification and in receipt of adequate salaries, must be open for not less than thirty-six weeks a year, must retain an adequate proportion of pupils for at least four years and an adequate proportion up to and beyond sixteen, and a suitable number of pupils must be submitted for examination to an approved examining body. Satisfactory arrangements must be made for the government of the school and, with certain exceptions, no catechism or formulary distinctive of any particular religious denomination may be taught. From the point of view of the increase of educational opportunities the most significant condition was introduced in 1907, requiring all fee-charging schools to offer free places to pupils entering from public elementary schools to the extent ordinarily of twenty-five per cent of the total number of pupils admitted to the school during the previous year. No school run for private profit is eligible for a grant from public funds. No distinction is made between the education of boys and girls, except that variations in the curriculum may be made to suit the needs and interests of the latter.

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[1] Sadler, M.E. *Report on Secondary and Higher Education in Essex*, p. 31.

A characteristic blend of public and private effort. The provision of secondary education thus represents a blend of public and private effort. One line of demarcation is the receipt or non-receipt of grants from the Board of Education; those schools in receipt of such grants are called efficient grant-aided schools. Grant-aided schools may be provided by the local education authorities or by private bodies, denominational or otherwise, but may not be run for private profit. In addition, other schools may, after inspection by the Board of Education be pronounced and listed as efficient, but are not eligible for the grant through failure to comply with all the conditions.

The variety of the supply of secondary education may be classified from another point of view — social and traditional. From this point of view four main types may be distinguished.

1. *The "public" schools.* The first group consists of the "public" schools, those schools which meet the conditions for eligibility of their headmasters for membership in the Headmasters' Conference. The conditions of eligibility to the Con-

ference are that the scheme of the school is satisfactory, that the governing body and the headmaster are independent, that the enrollment is adequate, that a certain number of the pupils proceed to Oxford and Cambridge, and that a good proportion pass the school-certificate examination. The group includes, besides the great public schools, about one hundred and fifty others which, whether of old or of recent foundation, have assimilated the traditions of the older public schools. The majority are boarding schools, the pupils living in dormitories or houses; the fees are high, but scholarships are available; and most of the pupils are admitted at about the age of thirteen, on the basis of an entrance examination for which they are prepared in preparatory schools.

While the classical tradition furnishes the backbone of instruction for most pupils, adequate provision is made to-day for differentiation in modern languages, science and mathematics, history, and other lines. The masters are drawn in the main from the two older universities, to which the majority of those pupils who continue their education later proceed. Since the War, and to a large degree because of the qualities displayed by the public-school product, the number of applicants for admission has increased tremendously and new institutions have been established on public-school lines. It is not, however, social exclusiveness nor the intellectual training that have given these schools the hold that they have on the public imagination so much as the qualities cultivated by the corporate life, and the games and athletics that are associated with what is called the "public school spirit." Some schools of this type are being developed for girls.

2. *The day schools.* The second group of schools consists of a large number of day schools — grammar schools or high schools — many of them as old as the older public schools. Because of their character as local schools this group has been more amenable to public demands, and the modernization of

the curriculum began somewhat earlier than in the public schools. Scholastically the best of these schools compete on equal terms with the public schools and, while their affiliations have traditionally been with the older universities, many have established close relations with the newer, so-called provincial universities. Pupils may be admitted before the age of twelve and remain up to the age of eighteen, the majority falling within the age group as defined by the Board of Education. So far as conditions permit the ideals of the corporate life of the public schools are here also reproduced. Fees are charged, but since a large number of these schools are aided by the local education authorities and receive grants from the Board of Education, free places are provided for pupils from public elementary schools.

3. *The council schools.* The third group consists of the council schools — public secondary schools in the real sense of the term, provided by the local authorities out of public rates under the provisions of the Education Act of 1902. Many of these schools are new foundations; some have been private schools that were purchased by the local education authorities; others were previously higher grade or organized science or technical schools. These schools, while they also charge fees at a lower rate than the other types, are more closely articulated with the elementary schools, admit their pupils at about the age of twelve, and retain the majority of them for a four-year course. Because of their origin these schools tended at first to emphasize the scientific branches, but they have gradually developed under the influence of the Board of Education a more balanced curriculum, although instruction in the classics does not enjoy the same position in them as in the other two groups. The majority of the pupils, to some extent because the preliminary preparation of future elementary teachers is given in these schools, proceed to the newer universities, from which, too, a larger percentage of the teachers

are drawn. The development of the council schools, which have had to make their own tradition, has been remarkable in the short period of their existence — hardly more than a quarter of a century. At present their best pupils are beginning to compete favorably for open scholarships at the universities with the pupils from the first two groups of schools — a healthy situation for the maintenance and advancement of standards in all the schools. In the same way the development of a corporate life is advancing gradually.

4. *The private schools.* The last group consists of private schools, the number of which is admittedly large but nowhere available, although the Education Act of 1918 provided for their registration with the Board for statistical purposes mainly. The schools in this group may be good, bad, or indifferent; the best are as good as any in the country and will justify the claims put forward for independent schools, viz., that parents have the right to choose the school to which they will send their children, and that they have in them opportunities for variation and experimentation. While the private schools are not subject to any public control or supervision, except technically in so far as they educate pupils coming within the range of the compulsory attendance laws, they may, on application, be inspected by the Board of Education, or by a local education authority, or by any other inspecting agency such as a university; many of them submit their pupils to recognized external examinations; and, finally, they may indirectly be brought up to standard partly under the conditions that have been set up for the registration of teachers, and partly under the provision for the superannuation of teachers, service for a number of years in an efficient school being required in both cases.

Forces which aided the development. Despite the variety of supply, a recognized system of secondary education has thus been developed in the main by three forces — the requirements of the universities for entrance and for competitive scholarships, the requirements of the examining bodies concerned in the examination of secondary schools, and the *Regulations* of the Board of Education. It is through the *Regulations* that certain recognized standards have been set up — a definition of the scope of secondary education, the duration of an adequate period of education, the prolongation of this period, and a definition of the content of a secondary education. For the development of a coördinated system of education the Board of Education was concerned from the first with providing for the proper articulation between elementary and secondary education, and the gradual elimination of much waste and overlapping of effort. Accordingly the *Regulations* require that for purposes of recognition, "the school must be a school for pupils who intend to remain for at least four years and up to at least the age of sixteen. It must provide a progressive course of general education of a kind and amount suited to an age range at least from twelve to seventeen."

In order to eliminate the practice of sending pupils to a secondary school for one or two years "to be finished," the *Regulations* require that an adequate proportion of the pupils remain at least four years in the school; many schools and local education authorities require an undertaking from parents to keep their children in school for this period. Because of the influence on the tone of a school in general, and on the standards of work in particular, an adequate proportion of the pupils must remain in a school up to and beyond the age of sixteen.

The aim of secondary education. The aim of secondary education is to give a general liberal education, which was defined in the *Regulations* for 1905–06 [1] in the following terms:

> The instruction must be general; i.e., must be such as gives a reasonable degree of exercise and development of the whole of the facul-

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[1] Board of Education, *Regulations for Secondary Schools*, p. vii. (London, 1905.)

ties, and does not confine this development to a particular channel, whether that of pure and applied science, of literary and linguistic study, or of that kind of acquirement which is directed simply at fitting a boy or girl to enter business in a subordinate capacity with some previous knowledge of what he or she will be set to do. A secondary school should keep in view the development and exercise of all the faculties involved in these different kinds of training, and will fail to give a sound general education to its scholars in so far as it sends them out, whether to further study or to business of life, with one or other of these faculties neglected, or with one developed at the expense of the rest. Specialization in any particular direction should only begin after the general education has been carried to a point at which the habit of exercising all these faculties has been formed and a certain solid basis for life has been laid in acquaintance with the structure and laws of the physical world, in the accurate use of thought and language, and in practical ability to begin dealing with affairs.

The Curriculum. Accordingly the *Regulations* have required that the secondary-school curriculum must provide instruction in the English language and literature, at least one language other than English, geography, history, mathematics, science, and drawing, and that provision must be made for organized games, physical exercises, manual instruction, and singing. Where two foreign languages are included, one of them must be Latin except by special permission of the Board, which may also approve the omission of foreign languages altogether, provided that the Board is satisfied "that the instruction in English provides special and adequate linguistic and literary training, and that the teaching staff are qualified to give such instruction." The Board of Education does not prescribe courses of study, but has from time to time issued memoranda and suggestions on various subjects. Each school enjoys freedom in organizing its curriculum, time-schedule, and courses of study, subject to the approval of the Board's inspectors. There is thus adequate room for flexibility and elasticity in defining the content of a general education. In schools for girls provision must be made for the inclusion of practical instruction in domestic subjects, such as needlework, cookery, laundry work, housekeeping, and household hygiene, and a combination of these subjects may be substituted for older girls partially or wholly for science and for mathematics other than arithmetic.

In a Report of the Consultative Committee on *Differentiation of the Curriculum for Boys and Girls respectively in Secondary Schools* (London, 1923), it was recommended that greater freedom should be introduced in the curriculum for both boys and girls, and especially that a more prominent and established place be assigned to æsthetic subjects, including music, art, and other æsthetic subjects. After recommending measures for assimilating girls' and boys' schools in such subjects as mathematics, physics, English language and literature, manual instruction, domestic subjects, and organized games, the *Report* urged that care should be taken for the protection of girls against physical fatigue and overstrain. Further research into the physical and psychological differences between boys and girls was recommended.

Liberal *vs.* vocational education. The curriculum of the English secondary school is thus determined by the aims and purposes of a general, liberal education, to the exclusion of any consideration of vocational preparation. On this point every class in English society, lay and professional, employers and workers, is agreed. This conclusion stood out clearly in the discussions on the extension of educational opportunities that took place during the War. Thus, the Workers' Educational Association resolved:

> That in the interests alike of education and of economic efficiency a sound general education in childhood and adolescence is the necessary foundation for any specialized course of technical or professional training, both in town and country, and that therefore a technical education should be regarded as supplementary to secondary education.

The Incorporated Association of Headmasters urged:

> The essential characteristic of post-elementary education should be the development of various types of schools so as to give the best possible chance to the most varied kinds of ability. The one common feature must be that the aim is primarily educational — the harmonious development of the mental, moral, and physical powers. The imparting of technical elements of a trade is not in itself an education, but to say this is not to deny that a great deal of knowledge that lies at the foundation of every sort of trade and practical pursuit can be and ought to be laid under contribution for the building up of various sorts of educational courses.

Hence, according to the *Schoolmasters' Yearbook* (1918), the secondary schools

> have to foster learning as a necessary element of life, and this they do by giving instruction which aids the pupil in his efforts to understand the things about him. To realize this purpose the schools need a wide curriculum. Literature, science, mathematics, art, and practical work all have their place, since each in its own sphere helps to cultivate that power of interpreting life which is the result of sound education.

There is a widespread belief that early specialization, whether academic or vocational, restricts the opportunities for that general education that is the foundation of the well-being of man as an individual and as a citizen. With the final extension of the franchise to all and with the changed conditions in working hours, there are required a wider dissemination of education and a preparation for the enjoyment of leisure. There is an equally genuine and sincere belief that technical and vocational training will be improved if based on a broad general education, a belief that is shared by educators and employers alike. Industrial and commercial progress, it is felt, will depend on a supply of well-trained and well-educated leaders and workers, rather than on the early specialization of boys and girls. This point stands out clearly in the recent *Reports* on Education and Industry.[1]

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[1] See *Report of the Committee on Education and Industry* (*England and Wales*), Second Part. (London, 1928.)

The educational objectives. The question of educational values was raised soon after the outbreak of the War, and the merits of various subjects — the classics, the sciences, and the modern languages — were discussed. Widespread attention was drawn to the backwardness of England in the scientific field, which was revealed early in the War, in a letter on "The Neglect of Science" in *The Times* of February 2, 1916. The letter, signed by a number of eminent scientists, deplored the lack of intelligent respect for science, and emphasized the need of scientific method and a scientific habit of mind in dealing with national problems. "Our desire is to draw attention to this matter, not in the interests of professional men of science, but as a reform which is vital to the continued existence of this country as a great power."

A reply to this letter appeared in *The Times* of May 4, 1916, on "Educational Aims and Methods," urging the claims of the humanities. "Technical knowledge is essential to our industrial prosperity and national safety; but education should be nothing less than a preparation for the whole of life." The signatories of the letter urged a proper balance in the curriculum in which the sciences and humanities would find their place. The question was taken up by the principal organizations representing the humanistic studies — the Classical, English, Geographical, Historical, and Modern Language Associations — which with the British Academy formed a Council for Humanistic Studies to meet with a committee representing the Royal Society and other organizations for the study of sciences. As the result of a conference between the representative committees the following resolutions were passed in January, 1917:

1. The first object in education is the training of human beings in mind and character, as citizens of a free country, and any technical preparation of boys and girls for a particular profession, occupation, or work must be consistent with this principle.

2. In all schools in which education is normally continued up to or beyond the age of sixteen, and in other schools so far as circumstances permit, the curriculum up to about the age of sixteen should be general and not specialized; and in this curriculum there should be integrally represented English (language and literature), languages and literatures other than English, history, geography, mathematics, natural sciences, art, and manual training.

3. In the opinion of this conference, both natural science and literary subjects should be taught to all students below the age of sixteen.

4. In the case of students who stay at school beyond the age of sixteen, specialization should be gradual and not complete.

5. In many schools of the older type more time is needed for instruction in natural science; and this time can often be obtained by economy in the time allotted to classics, without detriment to the interests of classical education.

6. In many other schools more time is needed for instruction in languages, history, and geography; and it is essential, in the interests of sound education, that time be provided.

7. While it is probably impossible to provide instruction in both Latin and Greek in all secondary schools, provision should be made in every area for teaching in these subjects, so that every boy and girl who is qualified to profit from them, shall have the opportunity of receiving adequate instruction in them.

These resolutions declared the general "faith in a liberal education as the foundation for all activities of mind and spirit in a civilized country." It was clearly established and accepted that the monopoly of the classics in education is incompatible with the extension of educational opportunities. At the same time, the implication was clear that an increase of opportunities for secondary education leads inevitably to a wider definition of liberal education, broad and flexible enough to permit adaptation to the abilities and interests of the individuals who are to enjoy it. Accordingly the principle upon which the *Regulations* of the Board of Education concerned with the content of a secondary education rest is to "allow and encourage much elasticity in curricula, subject only to the fundamental principle that the school course make effective provision for the development of bodily and mental faculties on broad and human lines in the pupils who will be the citizens of the future." [1]

Local initiative and the curriculum. The Board of Education accordingly defines the general scope of the curriculum and leaves to each school the preparation of its own course of study, subject to the approval of the Board's inspectors. For the majority of the pupils from the ages of twelve to sixteen, a general course, observing a proper balance between the humanities and sciences, is organized, covering a period of four years and culminating in the First or School Certificate Examination conducted by an external examining body. In its Circular 1294, the Board of Education suggested the following time-distribution of the subjects in the secondary-school curriculum.

Subject	Periods (45 minutes)
English	2-4
Languages (2)	9
Science	6
History	2
Geography	3
Scripture	1
Mathematics	6
Drawing	2
Music	1
Manual work	2
Physical exercises	2
Total periods	35-37

In an effort to encourage the prolongation of school life, and to provide for specialization for pupils intending to pass on to the universities and other places of higher education and research, the Board, in its *Regulations* for 1917–18, proceeded to carry out its plan, already outlined in 1913, to promote by a special grant the organization and development of advanced courses for pupils remaining in school for two years after passing the First Examination. Provision was made first for three such courses:

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[1] For a more detailed account of the discussions on the aims of secondary education and the meaning of a liberal education see Kandel, I. L., *Education in Great Britain and Ireland*, U.S. Bureau of Education, *Bulletin* (1919), pp. 47 ff.

(*A*) Science and mathematics.
(*B*) Classics, viz., the civilization of the ancient world as embodied in the languages, history, and history of Greece and Rome.
(*C*) Modern studies, viz., the languages, literature, and history of the countries of Western Europe in modern and medieval times.

Adequate provision for continuing general subjects was required.

As a result of protests against the restriction of advanced courses to three groups, the Board of Education permitted the introduction of other groups. To the three courses mentioned above there have now been added the following:

(*D*) The civilization (1) of Greece and Rome, and (2) of England or another country of Western Europe in modern times, as embodied in their language, literature, and history.
(*E*) Geography combined with two other subjects approved by the Board, of which at least one must be history or a science.
(*F*) Such other combinations of subjects as may be approved by the Board.

In 1927–28, 482 advanced courses were recognized by the Board, 230 in science and mathematics, 188 in modern studies, 38 in classics, 9 in classical with modern studies, 4 in geography, and 9 in other combinations of subjects.

The development of advanced courses, which are tested by the Second or Higher Certificate Examination, has introduced a new problem, since they tend to overlap to some extent with the first year of the courses for the general degree in many of the universities. They have had, however, the effect of raising the general standards in many schools, and have encouraged an increasing number of pupils to proceed to the universities.

Examinations and standards. Although courses of study are not prescribed by the Board of Education, indirect methods of standardization supplement the more direct methods of the inspectors, who bring a breadth of knowledge and experience to the consideration of the courses submitted to them for approval by the individual schools. For the best pupils, standards have long been set up by the examinations for competitive scholarships offered by the various universities, the local education authorities, and the State. One of the healthiest developments since the beginning of the century has been the organization of associations in the interest of special subjects, which has also been fostered by the provision for their study in the universities. Among these associations are the Classical, English, Geographical, Historical, Modern Language, Science Masters, and Mathematical, each of which has infused a new vitality into the subject that it represents, and supplemented the more general discussions of such organizations as the Headmasters' Conference, the Headmasters' Association, and the Associations of Assistant Masters and of Assistant Mistresses. The memoranda, suggestions, and series of *Educational Pamphlets* of the Board of Education have contributed extensively to enlightenment on the issues involved in the organization of the content of the secondary-school curriculum. The development of vacation courses on special subjects, and the provision whereby teachers are encouraged to make short visits to observe the practice of other teachers, have had the same effect. Four extensive *Reports*, prepared by special committees appointed during the War by Mr. Lloyd George, then Prime Minister, brought together the best judgments and opinions of specialists and laymen on the position in a national system of education of natural science, classics, modern languages, and English.[1]

Important place of the examination. Perhaps the most characteristic influence on education in England is that of examinations. In the nineteenth century elementary education and the development of instruction in science and art was promoted by examinations which, because of the monetary reward attached to the results, both standardized and dominated the work of the schools. In the field of secondary education the external examination has always been looked upon as a method of standardization, ever since the College of Preceptors undertook to examine secondary schools, in 1853. From that time the development of examining bodies, representing the universities and a great variety of professions, increased without check, with the result that the great variety of standards and requirements caused a constant upheaval in the schools, and interfered with the systematic organization of the curriculum, particularly as examinations were available for every year of a pupil's secondary-school life. While financial rewards were not attached to the results, schools tended to advertise their successes in the examinations.

The confusion resulting from the multiplicity of examining bodies and the detrimental effect on the schools led, in 1911, to a consideration and report on the subject by the Consultative Committee of the Board of Education.[2] As a result of the *Report*, the Board of Education in 1914 prepared a scheme to limit the number of examining bodies and to curtail the number of examinations to two, the first to be general in character and taken by pupils at about the age of sixteen, on the completion of a four-year course, and the second, more specialized, to be taken two years later. It was further intended that the examinations should be in groups of subjects, and that provision should be made for the inclusion in the scheme of such subjects as drawing, music, manual instruction, and housecraft (for girls). The Board put the scheme into operation in 1917. A Secondary Schools Examinations Council was set up to act in an advisory capacity, with a membership including representatives of the examining boards of universities, the Teachers' Registration Council, local authorities, and others. The chief function of the Council is to recommend examining bodies for approval, to supervise the maintenance of standards in the examinations, and to secure the recognition of certificates obtained in the examinations by universities and professional bodies. The Council requires that the coöperation of teachers be secured by the examining bodies.

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[1] *Report of the Committee appointed to inquire into the Position of Natural Science in the Educational System of Great Britain* (London, 1918); *Report of the Committee appointed by the Prime Minister to inquire into the Position of Modern Languages in the Educational System of Great Britain* (London, 1918); *Report of the Prime Minister's Committee on the Position of Classics in the Educational System of the United Kingdom* (London, 1921); *The Report of the Departmental Committee appointed to inquire into the Position of English in the Educational System of England* (*The Teaching of English in England*) (London, 1921).

For an analysis of the first two *Reports* see Kandel, I. L., *Education in Great Britain and Ireland*, U.S. Bureau of Education, *Bulletin* (1919) No. 9, pp. 34 ff.; and of the Third, Kandel, I. L., *The Classics in England, France, and Germany*, Part III of the *Report of the Classical Investigation* (Princeton, 1925).

[2] *Report on Examinations in Secondary Schools*, 1911.

The Board of Education may, under the *Regulations*, require schools to submit whole forms for examination by an approved examining body, and pays a grant for each pupil who takes an examination. Eight examining bodies have been recognized: the Joint Matriculation Board of the Northern Universities, the Universities of London, Bristol and Durham, the Central Welsh Board, Oxford and Cambridge Schools Examination Board, the Oxford Delegacy for Local Examinations, and Cambridge Local Examinations Syndicate.

Requirements of the Joint Matriculation Board. These requirements may be cited as an example of what is demanded. For the *First* or *School Certificate Examination*, the subjects of the examination are arranged in groups:

Group I. English composition, English literature, history, geography, and Scripture knowledge.

Group II. Greek, Latin, French, German, Russian, Spanish, Italian, and any other language approved by the Board.

Group III. Mathematics, mechanics, physics, chemistry, *either* natural history *or* botany, physics-with-chemistry.

Group IV. Art, music, handicraft, bookkeeping, cookery, laundrywork, needlework, housewifery, domestic science, geometrical drawing.

Candidates must satisfy the examiners in English composition, and in at least five other subjects must pass in Groups I, II, and III separately, and also reach the credit standard in at least one subject. Certificates of candidates who reach the requisite standard of merit in a subject will record that they have passed in that subject *with credit* or *with credit and distinction.* Candidates who pass the first school examination, with credits in a number of specified subjects, may be exempted from entrance examinations to universities.

The Second Examination is, as a rule, based on the advanced courses; that is, classical languages and history, modern studies (languages, history, and geography), mathematics, science, and geography, the special subjects being supplemented by subsidiary subjects taken from the general courses.

In 1928, the number of candidates entered for the first examination was 56,218, of whom 38,469, or 68.4 per cent, obtained certificates. For the second examination, 8,670 pupils were entered, of whom 6,067, or 70 per cent, obtained certificates. The organization of the examinations has undoubtedly had a salutary effect in defining the scope of secondary education, and the school certificate, indicating the completion of four years of secondary education, has come to be generally required of applicants for employment in business offices, banks, railways, insurance companies, and other similar organizations. While the examinations with the wide offering of choices do not press too unduly on the schools, the gradual acceptance of the school certificate as evidence of a secondary education has militated against a desirable expansion of the curriculum for those pupils who might profit more from the study of practical subjects, and has placed obstacles in the way of the development of the central schools which have hitherto attempted to meet the needs of this type of pupils but have not been regarded as secondary in character. There appears, of course, an annual crop of criticisms of examination papers, but this does not affect the really fundamental question of the proper scope of secondary education.

Rapid increase in enrollments, and their significance. English secondary education has, in fact, developed into a situation similar to that in the United States at about 1910. There has been a great increase, remarkable, if not spectacular, as in the United States, of the enrollment in the secondary schools. As compared with the enrollment of 31,716 boys and girls in grant-earning secondary schools in 1902, there was, on October 1, 1929, an enrollment in England and Wales of 401,505 (212,903 boys and 188,602 girls); to this number must be added 63,789 pupils (32,496 boys and 31,293 girls) in efficient but not grant-earning schools. At the beginning of the school year 1929–30 there was thus a total enrollment of 465,294 boys and girls in schools under the purview of the Board of Education. Since 1913 the number of pupils has more than doubled in such schools; the number of pupils in other schools cannot be ascertained. The problem would have become complicated in time even without the reorganization of English education that is contemplated in the near future.

The increased enrollment means a wider distribution of differences in abilities, and yet the examinations require the same range of subjects, though not the same standard in them, as for matriculation at a university. Of those who take the first examination, and not all pupils who leave school at sixteen do so, about two thirds pass; the large majority of pupils, perhaps 80 per cent, enter commercial and industrial life or, in the case of girls, remain at home. There is developing, as a result, the opinion expressed by a Director of a county education authority: "To me it is scarcely reasonable to suppose that a curriculum which has for its chief aim the passing of such a test is the most appropriate for all of them."[1] The examination may meet the needs of those who intend to proceed to a university or other institution of higher education and those who desire to enter a profession, but not those who only desire the mark of a good secondary education. The present requirements penalize pupils who are defective in one of the first three groups, and a subordinate place is assigned to the fine and practical arts subjects.

As a result of discussions and conferences, the following resolutions were adopted, in 1928, by headmasters and headmistresses:

> That the imposition upon the secondary schools of a school certificate examination of the present type is having a very unfortunate influence upon the attainments, character, and opportunities of at least half of the pupils in those schools, who do not benefit by the course of education prescribed or the methods of teaching which it necessitates.

The education committee of the County Councils Association adopted the recommendations of its sub-committee, which were of the same tenor:

> The Sub-Committee accordingly recommend that, without prejudice to such combinations of subjects as may in future be deemed necessary for exemption from matriculation and other preliminary examinations by the Universities and professional bodies, there should be greater freedom of choice in the subjects required for a First School Certificate. And the Sub-Committee believe that such

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[1] See *A.M.A.*, journal of the Assistant Masters' Association, January, 1927; and the *Twenty-Second Annual Report* of the Education Committee, 1925-26, of the County Council of the West Riding of Yorkshire, pp. 56 ff.

a change might be effected, to the great advantage of a large proportion of the pupils attending secondary schools, without either lowering the general standard of the examination or impairing the value of the certificate.

The Sub-Committee are further of the opinion that the following changes, among others that might be suggested in the direction indicated in this memorandum, merit the careful consideration of the Board of Education,the Local Education Authorities, the secondary schools, the Examining Bodies and the Associations of Teachers concerned: (*a*) that, subject to an appropriate combination of subjects, a pass in a foreign language should not be obligatory. (*b*) That the practice of allowing alternative syllabuses, which now obtains under the regulations of certain Examining Bodies, should be extended. Greater freedom of choice may lead to different combinations of subjects, and it may also have an important influence upon school syllabuses, as, for example, in general science. (*c*) That more value should be attached to practical subjects, including art, music, wood and metalwork, machine drawing and elementary engineering, domestic science, and practical rural science.[1]

Alternative courses. At least one county education authority, the West Riding of Yorkshire, has followed the logic of the situation and has introduced alternative courses in some of its secondary schools for pupils not of the school certificate type. The alternative courses follow the following lines:

(1) Mechanics, machine drawing, and engineering workshop.

(2) (*a*) Handicraft (including wood-turning, sheet metal work, pattern making, industrial art applied to engineering or textiles, industrial history, and commercial geography); (*b*) engineering (including that pertaining to heat engines, machine drawing and design, and machine shop practice); or (*c*) textiles (including study of materials, fabrics, cotton, flax, hemp, jute, ramie, silks, artificial fibers, and waste materials, principles of weaving, etc.).

(3) Courses in the management and cultivation of land or (for girls) in country or home occupations.

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[1] See *School Government Chronicle*, March 9, 1929, pp. 158 f.

(4) (*a*) Special courses for girls with academic subjects and art or music or domestic subjects, or crafts, or extra physical training work; (*b*) a business course, including academic subjects and shorthand, bookkeeping, and typewriting. It has been found that a fair proportion of the pupils taking such courses can be presented for one form or other of the school-certificate examination even under present regulations; that the work in the alternative and academic courses is common in a number of subjects; and that only a slight amendment of the regulations for the examination is necessary to meet the needs of this group of pupils.[1]

It is obvious, then, that secondary education in England, after a period of quiet construction, is entering on a new stage of development. As Sir Michael Sadler stated, in a recent discussion of examinations: "We want one certificate, but different avenues leading up to it. Those avenues should be boldly incongruous, because the two types of mind for which they are designed are dissimilar. But the different avenues should converge on one certificate, and boys as well as girls should be allowed to follow them." [2]

Democracy and education. In the mean time a new complication has been gradually introduced by the demand which gained force during the War for an increase in the provision of educational opportunities for all. Secondary education in England, as elsewhere, had by tradition been regarded as selective in character and, if not for the upper classes, at least for the intellectual élite. The development of a public system of secondary schools provided and maintained by public taxation inevitably pushed the class notion into the background. The introduction, in 1907, of the provision for "free places" for pupils from public elementary schools gradually threw a new light on the whole problem.

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[1] See County Council of the West Riding of Yorkshire, Education Department *Alternative Courses in Secondary Schools.* (1927.)

[2] Sadler, Sir Michael E., "Examinations," in *The New Era*, January, 1929.

The political idea behind the free place regulations was that state-supported schools must be accessible, and not be "class" institutions. It was not thought expedient to abolish fees, though schools with high fees were looked at askance. Free places were required instead; it was emphasized that they must not be regarded as scholarships awarded for exceptional merit, but that they should be open to any public elementary-school child who reached the ordinary standard of entry.[1]

Yet the class idea, or at any rate the idea of social exclusiveness, had an important effect on the development of schools. Those schools that had endowments and could charge high fees were not affected, but there were many others that catered to a clientèle which, whether through failure to appreciate the new position of the public elementary schools or through snobbishness, objected to the social leveling. These schools were in many instances unable to maintain themselves without public aid, and, because they were almost threatened with extinction by the admission of pupils from public elementary schools, either were sold to local authorities or accepted the conditions, became aided schools, and managed to survive.

On the scholastic side there were many secondary-school teachers who also, through failure to understand the progress of the elementary schools, feared a lowering of standards or inability of new clientèle to adapt itself to the atmosphere and tone of a secondary school. Twenty years of the operation of the free-place regulations have proved that the fears expressed on their introduction were groundless. The number of grant-earning schools (schools which comply with all the conditions for the grant, and accordingly admit free-placers) has increased from 407 in 1903–04 to 1341 in 1928–29, distributed as follows: council schools, 692; Roman Catholic schools, 82; Foundation and other schools, 465; Welsh Intermediate Schools, 102. The enrollment of pupils, boys and girls, in grant-earning schools has increased from 31,716 in 1902, to

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[1] *Report of the Board of Education for the Year 1923–24*, p. 17. (London, 1925.)

401,505 (212,903 boys and 188,602 girls) in 1929. According to figures available on October 1, 1929, the total number of pupils in schools recognized as efficient, in England and Wales, both grant-aided and not, was 465,294.[1] The number of free-placers has risen from 47,200 in 1908–09, or 31.2 per cent of the enrollment (a figure already exceeding the regulation requirement of 25 per cent), to 164,287 in 1929, or 40.9 per cent of the total enrollment. Several of the authorities, notably Manchester and Bradford, have abolished fees entirely in their secondary schools.

Prolonging school life. In guiding the development of secondary education the Board of Education emphasized the importance of prolonging school life. The success of these efforts is indicated by the fact that the average school life has increased from 2 years 7 months for boys, in 1908–09, beyond the age of 12, to 4 years 1 month beyond the age of 11, in 1927–28, when a new method of calculation was introduced, while the average leaving age has advanced from 15 years 5 months for boys and 15 years 11 months for girls, in 1908–09, to an average of 16 years 1 month for both. It is also striking that of pupils leaving in 1926–27, only 19.8 per cent of the fee-paying pupils had obtained the school certificate as compared with 48.1 per cent of the free-placers.

Another test of efficiency which the Board undertook to promote was the retention of an adequate number of pupils beyond the first examination. Evidence of success in this direction is found in the number proceeding to the universities; in 1908–09, 1056 (695 boys and 361 girls) continued to a university, and 3638 (2336 boys and 1302 girls) in 1928–29. Of the total 3638, nearly two thirds (2220) were ex-elementary-school pupils, and of those who proceeded to Oxford and

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[1] It must be remembered that these figures do not include a large number of pupils who are in secondary schools that are neither grant-aided nor inspected by the Board of Education.

Cambridge 363 of the 631 were also ex-elementary-school pupils, so that of the total enrollment at these universities more than 1200 students belong to this class. These figures do not include those who proceeded to training colleges for elementary-school teachers.

The significance of these figures was not lost. With the improvement of the elementary schools and a gradual increase in them of teachers who had themselves been trained in universities, the desirability of further education gained momentum, which pace was accelerated by the improvement in the economic conditions of the working classes soon after the War broke out. A large share of the increased wages was devoted to withdrawing boys and girls from work and sending them to secondary schools, a fact which is evidenced by the increased enrollment in England and Wales from 199,850 in 1913–14, to 297,724 in 1918–19. These figures do not take into account the increased enrollment in central and other types of post-primary education which have so far not been included in the recognized provision of secondary education.

Secondary education for all. Secondary education thus spread down to classes to whom it had hitherto been closed. The success of the new clientèle only served to reveal the tremendous waste of ability that existed and, combined with other social forces for national reconstruction, led to a widespread demand for an extension of educational opportunities. The movement for the democratization of educational opportunities had arrived. *The Times*, early in the War, sponsored a scheme for the reorganization of the whole educational system into primary up to the age of eleven plus, and secondary thereafter for all. Proposals of a similar nature, though not as fundamental, were included in most of the programs for educational reconstruction, which in the main advocated a broadening of the educational ladder and so retained the notion of selection. The Labour Party early committed itself to the doctrine of a single system of free and universal secondary education, into which would be merged all those arrangements which it regarded as substitutes for secondary education and as attempts to satisfy the public demand by imitations, such as the continuation schools, central schools, and junior technical schools.[1] The Education Act, 1918, provided that "adequate provision shall be made in order to secure that children and young persons shall not be debarred from receiving the benefits of any form of education by which they are capable of profiting, through inability to pay fees."

The difficulty that presented itself was to discover an adequate definition of capacity to profit by further education. There was enough evidence to show that many pupils who qualified for admission to secondary schools were unable to avail themselves of the opportunity because of poverty, while others had to be refused admission because of lack of accommodation. The opinion of educational experts, presented to the Departmental Committee on Scholarships and Free Places, was that 75 per cent of pupils in the elementary schools were "intellectually capable of profiting by full-time instruction up to or beyond sixteen."[2]

It appeared to many that the attempt made in the Education Act, 1918, to introduce a system of compulsory attendance at continuation schools, and to provide for an enriched course in the last years of elementary education in central classes and central schools, only shelved the ultimate solution of the problem. The failure to put the provisions of the continuation-school requirement into effect, and the evidence of the schemes prepared by local education authorities for the post-War organization of education, both pointed insistently to a broader policy than had been anticipated by the Act.

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[1] See Tawney, R. H. *Secondary Education for All: A Policy for Labour.* (London, n.d.)

[2] See *Report of the Departmental Committee on Scholarships and Free Places.* (London, 1920.)

In 1924, the Consultative Committee of the Board of Education was requested

> to consider and report upon the organization, objective, and curriculum of courses of study suitable for children who will remain in full-time attendance at schools other than secondary schools, up to the age of fifteen, regard being had on the one hand to the requirements of a good general education and the desirability of providing a reasonable variety of curriculum, so far as is practicable, for children of varying tastes and abilities, and on the other to the probable occupations of the pupils in commerce, industry, and agriculture.

The Committee issued its report on *The Education of the Adolescent*, in 1926. The Committee reached the conclusion that

> it is of urgent importance to ensure that, with due allowance for the varying requirements of different pupils, some form of post-primary education should be made available for all normal children between the ages of eleven and fourteen, and, as soon as possible, eleven and fifteen; [that] primary education should be regarded as ending at about the age of eleven plus. A second stage should then begin, and this stage, which for many pupils would end at sixteen plus, for some at eighteen or nineteen, but for the majority at fourteen plus or fifteen plus, should, as far as possible, be regarded as a single whole, within which there will be a variety of types of education, but which will generally be controlled by the common aim of providing for the needs of children who are entering and passing through the stage of adolescence; and that all normal children should go forward to some form of post-primary education. It is desirable, having regard to the country as a whole, that many more children should pass to "secondary" schools, in the current sense of the term. But it is necessary that the post-primary stage of education should also include other types of post-primary schools, in which the curricula will vary according to the age up to which the majority of pupils remain at school, and the different interests and abilities of the children.[1]

The detailed recommendations of types of schools, nomenclature, and organization it is unnecessary here to discuss. Two important facts stand out: the first is that the provision of secondary education for all for at least four years is brought within the range of practical politics; and second, that the extension of secondary education brings in its train a broader conception of the meaning of a liberal education. Specialized vocational preparation continues to be excluded from the scope of the new schools that are proposed.

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[1] *The Education of the Adolescent*, pp. 172 f.

But, as an experienced educationalist, who emphasized strongly the importance of avoiding premature specialization, pointed out, "there is no reason why any of the materials of a good general education should not be found in activities bearing directly on the immediate environment of the children."... A humane or liberal education is not one given through books alone, but one which brings children into contact with the larger interests of mankind; and the aim of the schools (to be established) should be to provide such an education by means of a curriculum containing large opportunities for practical work and related to living interests. In the earlier years the curriculum in these schools should have much in common with that provided in the schools at present commonly known as "secondary"; it should include a foreign language, subject to permission being given to omit it in special circumstances; and it should be given a "practical" bias only in the last two years.[1]

The new prospect in education. In its pamphlet on *The New Prospect in Education* (1928) the Board of Education indicated its general acceptance of the recommendation to extend compulsory education to fifteen and to introduce a break at the age of eleven plus, at which age primary education would be completed and some type of post-primary education will be begun. The continued prevalence of unemployment, among young persons as well as adults, has served as a forceful argument for retaining the former in school as long as possible, partly to give them a better preparation for life and partly to relieve the labor market. It was of no little significance that all the political parties, Conservative, Liberal, and Labour, committed themselves in their election manifestoes in

[1] *The Education of the Adolescent*, pp. 84 f.

May, 1929, to the extension of the age for compulsory school attendance and a reorganization of the school system.[1]

The question was brought to a practical issue when Sir Charles Trevelyan, Minister of Education in the Labour Government, introduced a bill at the close of 1929 to extend the compulsory age-limit to fifteen, by April, 1931. The general implications of the reorganization are clear; the details of areas of administration, the adjustment of the claims of denominational schools, the provision of maintenance grants for the extra years of education, and the types of schools and curricula, all problems of considerable difficulty, have tended to retard the progress of legislation on the subject. With the passage of the bill, however, the democratization of education will have been attained, and the remaining problem of providing that no pupil be deprived of his rightful opportunity of attending the school for which his abilities are best adapted is not insuperable.

Wide variety retained. England is well on the way, if the promise of the present day is carried out, to realizing in a fuller and richer fashion the fundamental principles upon which her educational system rests — that of variety set in a national framework. Because of the difficulties of organizing a great variety of curricula in the same school, and because the English tradition is definitely set against large schools, the adoption of the cosmopolitan secondary school is entirely out of the question. The ideal that is before the majority of educators and those interested in educational politics has been well summarized recently by the Headmaster of Harrow:

> I have before my mind a vision of many schools which shall each set before themselves the same ideal, and shall through varying circumstances and in diverse ways give their own interpretation of it. It will be a system which seeks at all its stages to get rid of exclusiveness and privilege, but it will face facts. It will realize that it is in

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[1] See *Educational Yearbook*, 1928, of the International Institute, Teachers College, Columbia University, pp. 39 ff. (New York, 1929.)

the nature of simple justice that all should have the same chance, and, so far as may be, it will seek to provide it, but it will recognize the truth that nature has not created them equal, and that equality of opportunity can never mean equality of performance. Infinite is the variety of the mental and physical endowments of individuals, and as infinite are the forms of service to which these gifts can be devoted. Ability of every kind is produced in a certain, but not too abundant, measure by every social class of the community, and the nation needs, more than it ever did before, the use and service of every ounce of trained ability that it can get. The schools of the democracy should therefore seek to be of the utmost variety, but should eschew from the outset that perversion of democratic theory which levels the best down to the standard of the average, and destroys idiosyncrasies in favor of a dull normality. We do not want schools according to a formula, and the last place in which we want mass-production is in education. Because we are working quickly, and working on a very large scale, we are in danger of producing it, and mistaking it for efficiency, but true education will always remain the sphere of the artist and the craftsman.[1]

Teachers for the schools. The supply of an adequate number of capable teachers presents as serious a problem to-day as it did when public secondary education began to be organized in 1902. There has, however, been a steady improvement in the qualifications of secondary-school teachers in grant-aided schools. The *Regulations* for 1903–04 required that "the teaching staff must be sufficient.... They must be registered in column B of the Official Register of Teachers, or must possess such other qualifications as may be required by the Board." The *Regulations* for 1906–07 seemed to indicate that the Board would require a course of training of new teachers, but neither this promise nor the requirement of registration has ever been carried out. There has none the less been an increase in the percentage of university graduates among men teachers from 62.7 per cent in 1905 to 81.7 per cent in

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[1] Norwood, C. *The English Tradition of Education*, pp. 243 f. (London, 1929.)

1928; for women the increase has been from 41.7 per cent to 64 per cent; of the remainder many were teachers of special subjects, such as music, art, and practical work. So far as professional training is concerned, it is characteristic of England that more value is attached to personality, experience, and scholarship than to training. The improvement of the secondary schools and the development of advanced courses have in turn contributed to raise the standards in the universities and to increase the number of students who work for an "honors" degree, the requirements for which are more narrowly specialized than for the "pass" or "ordinary" degree. It is from the graduates with honors that an increasing number of teachers are recruited.

On the subject of training, the Board has never given a direct lead, and a well-organized system of training secondary-school teachers does not exist. Such teachers may be trained in the universities in a post-graduate course, or may, under *Regulations* of the Board, be appointed as probationary teachers in a recognized school for one year, during which they receive guidance on the practical side and study the theory of education in preparation for an examination conducted by one of the universities. The adoption of a definite scale of salaries, in 1921 and 1925, offering an additional increment to trained graduates, has been effective in increasing the number of trained teachers. As compared with 31.3 per cent of the men and 43 per cent of the women in 1908–09, 48.4 per cent of the men and 57.9 per cent of the women had been trained in 1928. The progress of training for secondary-school work is admittedly slow. The Teachers' Registration Council, which was finally organized in its present form in 1912 after nearly fifty years of agitation and failure to secure legislative action, has not been able to insist on professional training as a requirement for registration, and continues to accept three years of successful teaching experience in lieu of training.

School life. The history of secondary education in England in the past three quarters of a century represents the gradual evolution of a national system, and in its more recent development a slow but progressive movement towards democratization, the full implications of which still remain to be worked out. In this evolution there has been an interplay of two forces — the tradition of learning and scholarship, and the tradition of the education of a gentleman. Standards of intellectual training have been and are high for those who have the ability and bent in that direction, but it has never enjoyed the whole-hearted appreciation of the nation that it has in Germany or France, nor have officially recognized privileges been attached to it as in these two countries. While the German has attached great value to knowledge, and the Frenchman to the possession of a state certificate as evidence both of knowledge and culture, the Englishman has always placed character and personality in the foreground. "Manners makyth the man" has been the accepted ideal of education ever since its adoption as the motto of Winchester College at the time of its founding in the fifteenth century.

It is this fact that explains the popular esteem of that somewhat elusive public-school spirit which has established itself as the tradition of secondary education since the days of Arnold. Developed fully under the peculiarly favorable conditions of the leading public schools, this spirit, so far as the difference in conditions makes it possible, has gradually come to permeate the newer secondary schools, and to some extent it may be claimed to have affected the elementary schools. The ideals of the public schools, open though these schools may be to the criticism that they are narrow in their outlook on national and social life, that they cultivate exclusiveness and perpetuate class distinctions, still have something in them that serve as standards not in England alone but throughout the British Empire.

The most marked characteristic of English education. Any layman, any teacher, if asked offhand what the purpose of education is, would answer at once that it is the formation of character, the moral and social training of the individual. It is this training that is the most marked characteristic of English education, and yet it is equally characteristic of England that she does not possess any formula or definition or theory of character or of character-formation. From the point of view of organization the provision for character-formation, unlike the extra-curricular activities in the high schools and colleges of the United States, is unobtrusive, for the Englishman believes with Wells "that what you organize, you kill." Moral instruction as such, or special courses in civics and citizenship are but rarely found, and yet the ideals that are sought by such instruction are inculcated. The Headmaster of Harrow has recently indicated the place that religion does or might play in the public schools;[1] in the day schools and especially in the grant-earning schools religious influences are left to be taken care of by the home and the church, although religious instruction has a place in the time-schedule.

So far as direct relations between teachers and pupils in the classroom are concerned, opportunities for training in conduct are seized as they arise. The greatest effectiveness in the formation of character is attained outside the classroom. Originating in the boarding schools, in which opportunities had to be provided for some outlet for youthful energies, the fundamental principle that emerged was that the best method for the formation of character consisted in the development of a community spirit, a feeling of corporate life, an *esprit de corps*. This came to mean in time that the school stands for something more than instruction; that it has customs, standards, and traditions that must be lived up to. In other words, the school is not merely a collection of classrooms, a loose organization of teachers and pupils, but a living organism, a society in miniature which imposes standards of living and of conduct that reflect the standards of the society around it. In this social community the teachers play their part, but unobtrusively and in the background. They are ready to advise, to coöperate, and to play their part in giving encouragement and stimulus, but leadership and direction are left to the pupils. The control lies not in the authority of the teachers, nor in the rigor of discipline, but in a personal sense of fitness, of *noblesse oblige*, acquired by years of apprenticeship followed by opportunities of leadership.

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[1] Norwood, C. *The English Tradition of Education*, chaps. III, IV, and V. (London, 1929.)

The standards of conduct are in replica those standards that make for the smooth running of any society. Honesty, uprightness, unselfishness, coöperation, give and take, fair play, playing the game — these are some of the ideals that are cultivated — but the system, a word that is in this connection most inappropriate, aims to do more. It provides opportunities for the emergence of leaders and for the exercise of initiative; it develops ability to see the other man's point of view; it trains in tenacity of purpose that is often unreasoning, but a tenacity based on the feeling that even the most uncongenial task once undertaken must be carried to a finish, whether for the group, the school, or the community.

English school life, and standards. Such are the ideals that are held to constitute the ends of character training. The means are those that any healthy-minded group of adolescent boys and girls would adopt. Athletics, games, sports loom large in the schools as they do in the national life, but they have been saved from that exploitation which has been the menace to their proper educational influence in American high schools and colleges. Athletics, though, do not constitute the only outlet; any form of adolescent activity that is of social value has its devotees — debating societies, literary and scientific societies, stamp-collectors' clubs, natural-history societies, photographic clubs, chess clubs, music clubs, dramatic societies, the school magazine, and many others. Running through all these activities is the system of self-government in which, except in the gravest instances, discipline is to a large extent entrusted to the older pupils, a practice which not only trains in qualities of leadership but also inculcates a rule, often forgotten, that the duty of obedience is of equal importance with ability to lead.

Foreign observers have not failed to note with admiration this aspect of English school life,[1] but they have equally not failed, especially if French or German, to comment on the inferiority of the intellectual standards, a view shared also by many English educators. This inferiority may be explained in part by the attempt, until comparatively recent times, to force all pupils into the same curricular mold, and in part to a cult or pose of disinterestedness in intellectual matters, manifested in the avoidance of "shop" talk.

The present situation. Conditions are changing with the gradual development of recognized standards of achievement, and the expansion of the curriculum with opportunities of adaptation to different capacities and interests. The ablest students have always received encouragement for their fullest development, and the "honours" boards in many schools attest to the fact that distinction in scholarship is as highly prized as success in athletics. The increase in the number of pupils from homes that recognize in education the best, perhaps the only, capital with which they can endow their children, is inevitably setting a new pace. From another point of view it may also be said that the development of secondary and higher education at public expense is slowly leading to a demand for adequate returns. Finally, the economic situation that has followed the War has led to a more widespread realization, dimly recognized at the close of the nineteenth century, of the importance of education for social progress at home and economic success in international competition.

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[1] See Wiese, L. *Deutsche Briefe über Englische Erziehung* (Berlin, 1852), and Démolins, E. *Anglo-Saxon Superiority; To What It Is Due.* (New York, n.d.)

England has thus been compelled by force of circumstances, social, political, and economic, rather than through any educational theory, to realize the full import of a national system of education. The problems of secondary education have by no means been solved; the establishment of secondary schools for all, which will follow the extension of compulsory school attendance to fifteen, will in fact bring new problems in its wake. Solution on a national basis, however, is brought much nearer by the provision of equality of opportunity for all, and by the creation of varied types of schools and courses to meet the diversity of intellectual abilities and capacities for which secondary education will have to provide. The sympathetic attitude of the country to the tradition of liberal education, now expanding in breadth and content, will protect the individual against early vocational exploitation; national needs will secure the incorporation of appropriate provisions for utilitarian purposes; and character training, perhaps the most vigorous motif in English education, will continue to be the basis for the transmission of national ideals, however varied the schools may become in their functions. On the threshold of the new era all who have the interests of democracy in education at heart are conscious of its greatest danger, the danger that the extension of educational opportunities may be accompanied by a leveling downwards to a dull mediocrity. This, however, will constitute, as it has already become in the United States, the central problem in the progress of education and of democracy.

CHAPTER IX

IN THE UNITED STATES

The Academy Period

Republican ideals in education. In the field of secondary education, the Republic had inherited some laws which, as was shown in an earlier chapter, had almost ceased to be observed, as well as a new type of secondary school which, in the second half of the eighteenth century, had begun to spring up in the different Colonies. The Republic also was born with a new faith in liberty and democracy, and, with these, in education. While some time was to elapse before the full meaning even of political democracy was caught by the people, the importance of education was never lost sight of — an importance which increased with the development of industries, the improvement of means of communication, and the consequent rise of cities.

The academy, because it was still flexible and not subject to the control of college-entrance requirements, as was the Latin grammar school, was peculiarly adapted to the growing demands of a society in its formative stages. Because it could serve more ends than one, it was the institution that was fostered almost everywhere, and became the secondary school most generally found in the first half of the nineteenth century. The academy was not only well adapted to the needs of the time, but it met the liberal demands of those who were giving thought to education.

The principles upon which the Republic rested were born out of French philosophy and the practical grievances of the Colonies. Not the least important of the philosophical principles which contributed to the molding of American thought was the belief in the perfectibility of man, his capacity for progress, and his right to an opportunity to realize himself.

Institutions existed to make man free for creative, effective living, and education was the chief means to this end. This forward look was accompanied by opposition to ancient institutions, and among these were included the study of Latin and Greek. The dead languages might be good for a few, but they should be replaced by studies that would function immediately. Writing in 1786, Benjamin Rush decried Latin and Greek as waste of time when the principal business of the people should be the opening up of the resources of the country. Accordingly Rush, in his *Thoughts upon the Mode of Education proper in a Republic*, advocated a secondary-school curriculum that should include "grammar, oratory, criticism, the higher mathematics, philosophy, chemistry, logic, metaphysics, chronology, history, government, principles of agriculture and manufactures, and in everything else that is necessary to qualify him for public usefulness and private happiness." Education should be directed to making young men into "republican machines."

The center of the new movements. Politically and intellectually, this rested with the American Philosophical Society for Promoting Useful Knowledge, which was organized in 1769 by a union of the Junto (established in 1727), and the American Philosophical Society (1743), both creations of Benjamin Franklin and his friends. After the Revolution the Society offered a prize for "the best system of liberal education and literary instruction, adapted to the genius of the Government of the United States; comprehending also a plan for instituting and conducting public schools in this country, on principles of the most extensive utility."

The first prize was awarded to Samuel Knox, president of Frederick Academy, Frederickton, Maryland, for his *Plan for a System of National Education adapted to the Genius of the Government of the United States* (1797). Education should be provided by the State in order to spread its benefits equally, and to "harmonize and unify" the diverse population, "blending together almost all the various manners and customs of every country in Europe"; private schools do not provide equality of opportunity, and they divide rather than unite. The aim of a liberal education is "the improvement of the mind, and the attainment of those arts on which the welfare, prosperity, and happiness of society depend." "It is certainly laudable to pay due regard to those sciences that tend to enlarge the sphere of worldly interest, and without which the various and complicated business of human life cannot be transacted." Accordingly the course of education, instituted in the public seminaries, should be adapted to youth in general, whether they be intended for civil or commercial life, or for the learned professions." The curriculum proposed by Knox for academies included English, French, Greek and Latin, Greek and Roman antiquities, ancient and modern geography, universal grammar, *belles lettres*, rhetoric and composition, chronology and history, principles of ethics, law and government, mathematics and sciences, astronomy, natural and experimental philosophy, and ornamental accomplishments, drawing, painting, fencing, and music. Two courses should be offered, one for college and the other for immediate business.

Though differing in details, the general principles advocated by the winner of the second prize, Samuel H. Smith, in his *Remarks on Education* (1798), were somewhat similar. Flexibility of institutions, education for constructive citizenship, a national or public system of education, and due attention to the study and promotion of the sciences as the basis of social welfare and progress — these were the main principles advocated at this period by those who directed their attention to the educational foundations of the young Republic.[1]

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[1] For a scholarly and detailed account of this period see Hansen, A. O., *Liberalism and American Education in the Eighteenth Century* (New York, 1926), on which the above paragraphs are based.

Spread of the academy idea. As will be indicated later, the importance of education was recognized in the early constitutions and in the Ordinances of the Federal Government, but even where the provision of secondary education was contemplated, it was generally an institution of the academy type rather than the Latin grammar school that was taken as a model. The public high school was a later development that accompanied the slow and gradual development of democracy, and it emerged with the expansion of public elementary education. For nearly half a century the academy provided, with few exceptions, the chief opportunity for secondary education.

The Latin grammar school of the colonial period had almost disappeared in Massachusetts by the end of the colonial period. The Boston Latin Grammar School was virtually the only one of its type that continued in full vigor after the Revolution. In 1789 the old law was amended, but even though the requirement to maintain a secondary school was now limited to towns with two hundred families, the provision was without effect. A further modification of the law in 1824, exempting towns with less than five thousand inhabitants from maintaining a secondary school, left only seven towns subject to the law. The rise and development of the district system made the provision of secondary education practically impossible. There was, however, the academy, which as the result of a measure adopted in 1797 made secondary education accessible throughout the State.

The Massachusetts investigation of 1797. An investigation of academies, which was made the subject of a report by a Committee of both Houses of the Legislature in 1797, showed that there were then in existence fifteen incorporated academies, of which seven had already received grants of land from the State. One township each had been given to the academies in Machias, Hallowell, Berwick, Marblehead, Taunton, and Leicester; Fryeburgh had received 15,000 acres. The

Committee recommended an extension of this principle of endowing academies with state lands, but under certain definite conditions. No academy was to be encouraged except where there was a supporting population of 30,000 or 40,000 inhabitants not otherwise supplied with an academy, college, or school of some kind. Every part of the State was to be equally eligible to grants in aid of private donations. The State was to be equally eligible to grants in aid of private donations. The State was to make grants of land only to academies having permanent funds received from towns or private donors, and sufficiently secured to provide enough at least for buildings, apparatus and books, and teachers' salaries. Of the fifteen academies that had not yet received land grants, it was found that Dummer Academy and Phillips Andover Academy adequately met the requirements as to permanent-funds and were properly located; but the academies at Groton and Westford were within seven miles of each other in the County of Middlesex, did not have a sufficiently large population to support both, and were both embarrassed for funds, but had been incorporated and countenanced by legislation.

The Committee recommended a grant of half a township of six miles square out of unappropriated lands in the District of Maine to each of these four academies, and a similar grant to the academies in Portland, Westfield, New Salem, and the County of Plymouth, provided evidence were produced that each had secured a permanent fund from their towns or from private donors of $3000. The same grant also was to be made for academies in the Counties of Barnstable, Nantucket, Norfolk, Dukes County, and Hancock, on condition that evidence of a permanent fund was produced within three years.

Reviewing the legislation that followed these recommendations, in 1797, the Joint Standing Committee on Education, of which Hon. Charles W. Upham was chairman, noted in its *Report* in 1859:

The following principles appear to have been established as determining the relation of academies to the Commonwealth. They were to be regarded as in many respects, and to a considerable extent, public schools; as a part of an organized system of public and universal education; as opening the way, for all the people, to a higher order of instruction than the common schools can supply, and as a complement to them, towns, as well as the Commonwealth, were to share, with individuals, the character of founders, or legal visitors of them. They were to be distributed as nearly as might be, so as to accommodate the different districts or localities of the State, according to the measure of population; that is, 25,000 individuals. In this way, they are to be placed within the reach of the whole people, and this advantage secured as equally and effectively as possible, for the common benefit.[1]

New academies incorporated. The provisions of the Act of 1797 immediately stimulated the establishment of new academies. Nineteen new academies were incorporated by 1820, and thirty-two were added by 1830. All the academies charged low tuition fees, but the necessity of living away from home did not make them generally accessible for a large part of the population. It is significant that many of these academies were coeducational. Thus Leicester Academy, opened in 1784, and Westford Academy, opened in 1792, were coeducational from the start; Bradford Academy was opened in 1803 for pupils of both sexes, but became a school for girls in 1836; while Ipswich Female Seminary, opened in 1825, reversed the process, started as a school for girls, later admitted boys, but subsequently became exclusively a girls' school.[2]

The incorporation of academies in Massachusetts, from 1780 to 1875, is given in the following table:[3]

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[1] Hammond, C. *New England Academies and Classical Schools*, in *Annual Report of the* (*Massachusetts*) *Board of Education, 1875–76*, pp. 194 ff. See also Barnard, *American Journal of Education*, XVII, p. 574.

[2] Hammond, C., *op. cit.*, pp. 235, 242, 263, and 283.

[3] Inglis, A. J. *The Rise of the High School in Massachusetts*, p. 11. (New York, 1911.)

Date	Number	Date	Number
1780–1785	5	1831–1835	32
1786–1790	1	1836–1840	14
1791–1795	7	1841–1845	11
1796–1800	4	1846–1850	10
1801–1805	7	1851–1855	14
1806–1810	4	1856–1860	5
1811–1815	2	1861–1865	4
1816–1820	6	1866–1870	6
1821–1825	4	1871–1875	5
1826–1830	28		
Total		1780–1875	169

According to G. A. Walton, the existence of some of these academies was temporary, of others fitful and ephemeral, while of many it was simply normal. All were incorporated by special legislation to hold in trust, for purposes of education, sums varying from $5000 to $10,000, not often, however, exceeding $20,000.[1]

The academy curriculum. The academies thus obviously met a need; their increase reflects the failure of the enactment of 1827 requiring towns of a certain population to make public provision of secondary education. They were semi-public institutions, but their popularity was due to the elasticity of their programs of study. The subjects offered early in the nineteenth century are indicated in the following advertisement of the headmaster of Woburn Academy (1815):

> It is his humble and pleasing object to instruct young Lads in a regular and genteel behaviour, and in the various branches of literature, viz: Reading, Writing, Arithmetic, Geography, Bookkeeping, English Grammar, Rhetoric, Composition, and the Latin and Greek Languages. Likewise — Astronomy, Navigation or Surveying, to such as may wish to acquire a knowledge in each of these branches....[2]

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[1] *Annual Report of the (Massachusetts) Board of Education, 1875–76*, p. 100.

[2] Quoted by Grizzell, E. D., in *Origin and Development of the High School in New England before 1865*, p. 33, from the *Columbian Centinel*, No. 3227, p. 3, March 11, 1815. (New York, The Macmillan Company, 1923.)

In 1822, Pittsfield Academy announced that the course of instruction would include "the Latin and Greek languages, reading, writing, English grammar, history, rhetoric, logic, composition, geography, drawing of maps, arithmetic, bookkeeping, algebra, geometry, trigonometry, surveying, navigation, natural and moral philosophy, and astronomy."[1] Leicester Academy expanded its original curriculum, which included Latin and Greek, English, writing and arithmetic, to offer geography, rhetoric, and grammar in 1813, and in 1824 the lower school, then organized, taught in addition to the classical studies the following: First Class Book, Worcester's Ancient and Modern Geography, Murray's Grammar, Walker's Dictionary, Colburn's and Adams's Arithmetic; the upper school offered, besides the classical studies, Lacroix's Arithmetic, Euler's Algebra, Blair's Rhetoric, Whelply's Compend of History, Hedge's Logic, Légendre's Geometry, Flint's Surveying, Conversations on Intellectual Philosophy, Wilkin's Astronomy, Conversations on Chemistry, Watts on the Mind. French was introduced before 1828.[2]

Popularity of the academies. That there was a demand for such broad programs is clear from the popularity of the academies. How this demand arose is not equally clear, except that the academy profited by the failure of the Latin grammar school and attempted to reach out to a clientèle that could not be attracted by a classical and college preparatory course alone. The rationale is nowhere defined except in the establishment of the Boston English High School (1821), which will be discussed later. Certainly the college-entrance requirements and even the college curriculum, in the first quarter of the nineteenth century, furnished no guide or stimulus, although new subjects in addition to Latin, Greek, and arithmetic were gradually demanded for admission — geography in 1807, English grammar in 1817, and algebra in 1820; while geometry did

[1] Inglis, A. J., *op. cit.*, p. 13.

[2] *Ibid.*, p. 12.

not appear until 1844, and ancient history until 1847. If any aims can be discerned, they were guided by a desire to serve all classes of the population and to prepare for life, while retaining the college-preparatory objective. A philosophy of education does not appear and, as contrasted with the rooted convictions on the purposes of a secondary education to be found in Europe at that time, the development of the curriculum seems to have been haphazard, vague, and opportunistic.

The breadth of the curriculum offerings of the academy had some influence on institutions that from the start were intended as college preparatory. Thus, to take an example outside of Massachusetts, the certificate of Lewis Cass, who was for seven years a pupil at Phillips Exeter, showed that he had studied the following subjects: English, French, Latin, and Greek languages, geography, arithmetic and practical geometry, rhetoric, history, natural and moral philosophy, logic, astronomy, and natural law.[1]

Out of the multiplicity of subjects two recognized departments — the classical and English — gradually emerged; usually the former was four years in length, and the latter three. Phillips Exeter Academy, in 1818, offered the following subjects in the four-year classical department: Latin, Greek, geography, composition, arithmetic, geometry, algebra, declamation, English grammar, and Roman and ancient history. The English department included, in its three-year course, geography, rhetoric and composition, arithmetic, geometry, algebra, declamation and forensic exercises, English grammar, ancient, modern, and United States history, plane trigonometry, mensuration, surveying, navigation, chemistry, natural philosophy, political philosophy, and logic.[2] Even the Boston Latin School, which made no pretense to be anything but a preparatory school, in 1827 offered the following subjects, in addition to Latin, Greek, and arithmetic — reading, grammar, geography, United States Constitution, algebra, geometry, composition, declamation, forensics, trigonometry, and chronology.

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[1] See Grizzell, *op. cit.*, p. 33, and Brown, *op. cit.*, p. 249.

[2] Grizzell, *op. cit.*, p. 290.

Academy development in Connecticut. The development of secondary education in Connecticut in the early years of the Republic paralleled that of Massachusetts, except that grants of land were not made by the State for the academies. Thirty-three academies or similar institutions were incorporated by the legislature between 1801 and 1840. The statutes of 1798 and 1799, initiating a permissive policy for the establishment by town vote of schools "of a higher order" above the common school, were ineffective from the start. The private academies flourished accordingly. Their aims and curricula were the same as those of Massachusetts; they endeavored to meet the needs of the pupils and to prepare for college. By 1830, the place and function of the academy were so clearly established that the East Windsor Academy could announce that it would offer instruction in "every branch of literature usually taught in other schools of the kind."

The New Britain High School, established in 1831 as the New Britain Grammar School for boys and girls, advertised a curriculum in 1832 which indicates some advance beyond those already given for Massachusetts. It offered reading, writing, arithmetic, grammar, geography, map-drawing, use of globes, history, rhetoric, logic, Latin, Greek, French, moral philosophy, natural philosophy, chemistry, astronomy, calculation of eclipses, algebra, trigonometry, mensuration, field and canal surveying, navigation, plane and spherical geometry, use of optical, trigonometrical, and chemical instruments, agents, and so on. The flexibility of programs is illustrated by the statement that there would be arranged "such, or such a system of each, accompanied with lectures, illustrations, and experiments, as shall suffice to form a thorough, practical education, adapted to any purpose or business of life." Every subject was taught "for *practical utility*, with reference to the duties and business of life."[1]

Although the academy flourished in Massachusetts and Connecticut and other New England States during the first few decades of the nineteenth century,[2] its existence ran counter to their traditions, which favored the public supply and control of education. The academy was a stopgap, and while it performed a necessary function, in many cases admirably, it was doomed to be superseded by the public secondary school as soon as conditions were ripe not merely for legislation, but for the effective enforcement of legislation. The cause that was to lead to the establishment of the Boston English High School, the desire for an appropriate type of education easily accessible at home, combined with the spread of the public elementary school, led ultimately to the rise of the public high school before which the academy declined. Private initiative in education was an idea alien to the New England tradition.

The situation in New York. The situation in New York State was different. Here education, and particularly secondary education, had always depended on private effort. The changes in political control during the colonial period were not favorable to the emergence of clearly recognized principles of government. Conditions in the middle of the eighteenth century were worse in New York than in New England, if Smith's account may be accepted.

> Our schools are in the lowest order; the instructors want instruction, and through a long and shameful neglect of all arts and sciences, our common speech is extremely corrupt, and the evidences of a bad

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[1] See Griffin, O. B. *The Evolution of the Connecticut State School System, with Special Reference to the Emergence of the High School*, p. 35. (New York, 1928.)

[2] The status of academies in the United States at the end of the eighteenth century is given in Winterbotham, W. *View of the United States of America.* (London, 1796.) The section on education is reprinted in Barnard, *American Journal of Education*, XXIV, pp. 137 ff.

> taste, both as to thought and language, are visible in all our proceedings, public and private.[1]

Probably conditions had not greatly improved by 1784, when Governor George Clinton stated in his message:

> Neglect of the education of youth is among the evils consequent on the War. Perhaps there is scarce any thing more worthy of your attention, than the revival and encouragement of seminaries of learning; and nothing by which we can more satisfactorily express our gratitude to the supreme Being for his past favors; since piety and virtue are generally the offspring of an enlightened understanding.[2]

Work of the Regents. In the same year (1784) there was created, by Act of the Legislature, the University of the State of New York under a Board of Regents, to whom was entrusted the task of establishing and controlling schools and colleges. By another act, passed in 1787, the powers of the Regents were somewhat enlarged and they were given the right to incorporate, visit, and aid academies. The Regents set up the conditions under which incorporation would be granted "if they conceived such academy calculated for the promotion of literature." These conditions included value of property, amount of debt, value of buildings, library, income, and number of pupils at the secondary level. The Legislature continued at the same time to retain its power to incorporate academies, and many that could not meet the requirements of the Regents were so incorporated.

The influence of the Regents began to be more or less effective as soon as they acquired resources from which aid could be given to the academies. In 1786, an act was passed setting aside in each town two lots of the State's unapportioned lands, one for gospel and schools and the other for promoting literature. Several large tracts of land were placed at the disposal of the Regents in 1790, and appropriations of £1000 a year were to be made until the land grant became productive, to be used for the aid of academies and colleges. In 1813, the Literature Fund was established from the sale of certain lands, for the benefit of academies; by 1834 the annual income had risen to $12,000, which an annual appropriation, enacted in 1838, raised to $40,000 a year. The constitution of 1846 devoted the Literature Fund permanently to the use of the academies.

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[1] Quoted by Winterbotham, *op. cit.*, from Smith's *History of New York*. (London, 1757.) See Barnard, *American Journal of Education*, XXIV, p. 146.

[2] Quoted in Miller, G. F. *The Academy System of New York*, p. 19. (Albany, 1922.)

The Regents were now in a position to devise a policy for the distribution of the fund, and determined that the aid given to academies should be used for salaries, library books, laboratory apparatus, and scholarships for needy students. The grants were given on the basis of total attendance, up to 1817, when the basis was changed to the number of pupils pursuing studies "which are usually deemed necessary as preparatory to the admission of students to well-regulated colleges"; the following year four fifths of the grant was made in proportion to the number of students pursuing the classics. In 1827, students pursuing the higher branches of English education were recognized for purposes of the grant, and minimum standards for recognizing *bona fide* students, in both the classical and the English departments, were defined. The funds at the disposal of the Board of Regents were increased in various ways, until, in 1887, the principle of a general appropriation was adopted.

The introduction of the principle of state aid to academies, whether incorporated by the Regents or the Legislature, served as a strong impetus to their growth. Between 1787 and 1853 three hundred and fifteen academies were incorporated, as is shown in the following table:[1]

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[1] From Gifford, W. J. *Historical Development of the New York State High School System,* p. 17. (Albany, 1922.)

	Incorporated by			Incorporated by	
Years	Regents	Legislature	Years	Regents	Legislature
1787-1790.....	4	-	1821-1825.....	2	11
1791-1795.....	11	-	1826-1830.....	5	30
1796-1800.....	4	-	1831-1835.....	2	36
1801-1805.....	4	-	1836-1840.....	12	64
1806-1810.....	4	-	1841-1845.....	32	13
1811-1815.....	10	-	1846-1850.....	21	10
1816-1820.....	6	5	1851-1853.....	20	9

Six of the schools incorporated by the Legislature, from 1847 to 1853, and included in the above list are properly high schools.

The Regents and the curricula. The Regents did not attempt to define the curricula to be followed in the academies, nor did they for many years undertake to examine or standardize them in any way. While the number was small the academies could be visited; as they increased, the only check that was kept on them was through the annual reports that they were required to submit on prescribed forms. As in Massachusetts, the academy was regarded as an institution to prepare boys and girls either for entrance into college or for life. Models for the earlier academies were found in the work of the two departments, the classical and English, of Erasmus Hall and Clinton Academy, which included respectively the following subjects:[1]

Classical Departments		English Departments	
Erasmus Hall	Clinton Academy	Erasmus Hall	Clinton Academy
Latin	Latin	English Language	English Grammar
Greek	Greek	Reading	Reading
Geography	Geography	Writing	Writing
General History	Natural Philosophy	Arithmetic	Arithmetic
	Logic	Bookkeeping	Accountantship
		Elocution	Public Speaking
		French	French

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[1] Miller, G. F., *op. cit.*, p. 111. (Albany, 1922.)

By 1829, the Regents recognized the following subjects as appropriate to an English education: history (all kinds), geometry, algebra, botany, rhetoric, natural philosophy, moral philosophy, logic, chemistry, bookkeeping, surveying, mensuration, navigation, astronomy, trigonometry, Constitutions of the United States and of New York, Greek and Roman antiquities, advanced arithmetic, advanced geography, French, German, Spanish, and other modern languages.[1] Out of this nucleus of subjects the secondary-school curriculum grew throughout the nineteenth century, not on the basis of any principle, but merely by accretion and accumulation. One hundred and fifteen subjects appear as taught in the academies, and after 1850 in the high schools of the State, between 1787 and 1900. This number does not, of course, mean separate and distinct subjects, but branches of the same general subject appearing separately; thus, under history, there appear general, English, French, Greek, Roman, United States, and New York. There are also included acoustics, phonography, phreno-mnemotechny, and waxwork.[2]

Beginnings of control through examinations. Some control began to be introduced by the Regents in 1864, when they established the preliminary examinations, and in 1877, when the introduction of academic examinations began to define standards both for graduation from the secondary school and for admission to college. These examinations introduced some orderly arrangement of courses for those who took them. The practice of issuing syllabi, begun in 1880, was gradually expanded and offered further guidance to those schools whose pupils were to be examined by the Regents. In 1890 a new system of courses and credits was introduced; that is, the weighing of subjects in terms of counts. The system is thus described by Gifford:[3]

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[1] Miller, G. F., *op. cit.*, p. 103.

[2] *Ibid.*, pp. 103 ff.

[3] *Op. cit.*, p. 151.

The count was interpreted as representing ten weeks' work in a course which a pupil pursued parallel with two other studies, and in which he recited five times a week. The whole number of branches in the nine groups of studies was increased to 68, and the counts were distributed as follows: ten were given 4 counts each; two, 3 counts each; forty-four, 2 counts each; and twelve, 1 count each; or a total of 146 counts.

The range of subjects, the subdivision into branches, and the weighting under this system, in 1890 and 1895, are given in the following table:[1]

	1890		1895	
Subjects	Branches	Counts	Branches	Counts
English	16	32	17	36
German	3	12	3	12
French	3	12	3	12
Latin	8	15	9	26
Greek	4	9	5	18
Mathematics	7	17	7	16
Science	10	20	10	20
History and Social Science	9	16	10	18
Others	8	13	7	12
Total	68	146	71	170

This system of counts adopted by the Regents was to become the model for the organization of the high-school curriculum throughout the country. It was inaugurated at a period when unrest was developing in the field of secondary education everywhere and when local and national organizations were beginning to direct their attention to the subject in general.

The era of the academies passes. In New York, the period of the academy was coming to a close; its position began to be contested, very slowly to be sure, after the passage of the Union School District Law of 1853. The academies were seriously attacked in 1873 by the Superintendent of Public Instruction, when it had been proposed to levy a tax for the support of secondary education. It was argued that these institutions were private in character and should not be given public assistance, that they were not accessible in all parts of the State, that they were managed for the profit of companies or religious bodies, and that they duplicated in part some of the work of the common schools.

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[1] Based on Gifford, *op. cit.*, p. 151.

The defense of the academies was that they were recognized by the Constitution as part of the educational system of the State and that they were public because incorporated, visited, and controlled by the Regents; that they relieved the State by the voluntary contributions, endowments, and investments that they held; that they were non-sectarian; that they trained leaders, and provided through their boarding provisions opportunities for education for pupils living in sparsely populated areas; and that they trained teachers for the common schools. The day of the academy had passed, however, and the last quarter of the century saw the rapid development of the public high school to take its place.

The academy and high school in Ohio. During the early part of the nineteenth century, when the westward movement was proceeding, it was the academy that supplied the facilities for secondary education, even in those States and Territories that contemplated a public system of education from the start. In Ohio there was in general a strong opposition to centralization, and local and private initiative prevailed. Free secondary education was not considered as part of the public system, and, although Superintendent Samuel Lewis, in 1838, advocated legislation to empower townships that could do so to provide secondary education at public expense, no action was taken. The academy, institute, or seminary, provided by stock companies or by denominational societies, was the usual type of secondary school found there practically up to the middle of the century. Between 1803 and 1850 the Legislature incorporated one hundred and seventy-two institutions of this type. The first of these schools was the Erie Literary Society at Burton, chartered in 1803, followed five years later by the establishment of academies in Dayton, Worthington, and Chillicothe.

The term "high school" began to be used in the thirties, but the institutions founded under this name were still private. The High School of Elyria was chartered in 1830, and the Woodward High School in Cincinnati in the following year. The aims of these institutions were stated in general terms, such as that the trustees were to provide instruction in the "arts and sciences," or in "learned languages, arts, and sciences," or in the branches of a "polite and liberal education." The Springfield High School, Clark County, was chartered in 1834, under a stock company, to "afford instruction to the youths of both sexes in the higher branches of an English education, or learned languages, or liberal arts and sciences, and such other branches of a polite and liberal education as may be prescribed by the trustees." Monroe Seminary, Monroe County, was incorporated in 1837 with the provision

> that it shall be the primary object of this institution to cultivate the intellectual and moral faculties of the youth who may resort to it for instruction, to teach them the art of self-government, and fit them by a judicious course of moral discipline for future usefulness and happiness; provided that no religious tenets of any religious sects shall ever be taught in such institution, nor shall any denomination of Christians be excluded.

The purpose of the Akron High School was stated in almost the same terms. Meigs County High School and Teachers' Institute was established in 1839, "to afford greater facilities for the instruction of youth in literature and science, and for the inculcating of good morals." Before 1850 the trend in favor of the public high school had already set in, especially in the larger cities; of the academies some became degree-granting colleges, others continued to perform a useful function until union school districts were legally sanctioned.[1]

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[1] For a detailed account of the academy movement in Ohio, see Miller, E. A., *History of Educational Legislation in Ohio from 1803 to 1850*. (Chicago, 1920.)

The county seminary in Indiana. The history of secondary education opened more promisingly in Indiana than in Ohio. Section 2 of Article IX of the Constitution of 1816 required the General Assembly, "as soon as circumstances will permit," to provide for "a general system of education, ascending in a regular gradation from township schools to a state university, wherein tuition shall be gratis, and equally open to all." Section 3 of the same Article provided for the establishment of county seminaries, as follows:

> And, for the promotion of such salutary end, the money which shall be paid as an equivalent by persons exempt from militia duty, except in times of war, shall be exclusively and in equal proportion applied to the support of county seminaries; also, all fines assessed for any breach of the penal laws shall be applied to said seminaries in the counties wherein they shall be assessed.

Following this provision the County Seminary Law was passed in 1818, assigning funds in each county for the establishment of a seminary "equally free and open to all the citizens of the county." In 1824, no seminaries having been established by that time, another act "relative to county seminaries" was passed providing for the erection of buildings for seminaries when available funds amounted to $400. Due to the generosity of towns and individual citizens who furnished land or subscriptions for the buildings, a number of seminaries were opened. Funds for running the schools were generally inadequate and tuition fees constituted the main source of revenue, the term "equally free" being interpreted in the sense of available to all the citizens of the county. By 1850 fifty seminaries — only about half of the number of counties — were opened under the provisions of these laws, but never met with any degree of popularity because they were regarded as "aristocratic schools" for the select few. Pupils of all ages were admitted; so far as secondary education was concerned it was of the academy type, and included Latin, Greek, French, mathematics, history, geography, literature, science, music, drawing, painting, shorthand, rhetoric, composition, debates, declamation, and the dictionary. The aim was liberal and disciplinary, but difficulties of organization were increased because of the lack of preparation of the students and the absence of well-defined courses. The seminaries were not only independent and unsupervised, but were not required to submit any reports until 1843, when they were required to return an annual report to the county auditor and the State Superintendent of Common Schools "showing the number, age, and studies of pupils, and the expense of instruction." The system, on the whole, was not successful; in time some of the seminaries were closed, and others were sold and became private institutions. Indeed, the seminaries, although public in the sense of being state-regulated, and in receipt of state aid from time to time, were supported by fees and "dependent upon personal and private enterprise and interest," and to that extent were virtually private educational institutions.

The incorporated private academy. Side by side with the county seminaries the legislature encouraged the incorporation of private academies, some by individuals or groups of individuals, some by denominational organizations, and some by educational societies. Boone gives a list of seventy-three as incorporated between 1816 and 1851, with the reservation that many others may have been incorporated and never opened. The purpose of the academies was, like that of the seminaries, twofold — general and preparatory, but like the seminaries they were not popular, and were looked upon with disfavor as expensive and aristocratic and as contributing inadequately to practical life.

As in other States, the contribution of the academies was considerable; learning was kept alive under pioneering and frontier conditions during the long period of opposition to the provision of secondary education at public expense. Even

Caleb Mills, leader in Indiana's early educational development, "repeatedly denied either the right or the need of the State to assume the burden and the responsibility of higher training." The movement for the creation of public high schools began about the middle of the century, but when, in 1854, the Supreme Court declared local taxes for education unconstitutional, academies were revived, and seventy-two were established after 1850. It was not until 1867 that local taxes for education were legalized, and the way was paved for the public high school.[1]

The academy in Illinois. The story of secondary education in Illinois follows the same lines as in Indiana — private institutions, incorporated by the legislature, and aided from time to time out of state or local funds until the development of the public high school deprived them of the reasons for their existence. Some of the academies were opened by adventurers and were temporary; others by societies of public-spirited citizens or by denominational groups. The earliest and first type the Reverend Timothy Flint characterized in a statement, applicable to many academies in other parts of the country:

> I have been amused in reading puffing advertisements in the newspapers. A little subscription school, in which half of the pupils are abecedarians, is a college.... The misfortune is, that these vile pretensions finally induce people to believe that there is a royal road to learning. The old beaten track, marked out by the only sure guide, experience, is forsaken. The parents are flattered, deceived, and swindled. Puffing pretenders take the place of the modest men of science, who scorn to compete with him in these vile arts. The children have their brains distended with the "east wind," and grow up at once empty and contented....A respectable man wishes to establish himself in a school in these regions. He consults a friend, who knows the meridian of the country. The advice is, Call your school by some new and imposing name. Let it be understood that you have a new way of instructing children, by which they can

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[1] For a detailed account of education in Indiana see Boone, R. G., *History of Education in Indiana.* (New York, 1892.)

learn, in half the time, as by the old ways...In short, depend upon the gullibility of the people.[1]

This demand for education was not always abused in this way, although the academies that were incorporated were in no way supervised. Between 1818 and 1848, one hundred and twenty-five academies were incorporated by special legislation — a practice which continued up to 1870. Provision was made in many of them for the education of girls, and for the free education of some poor pupils. The main support came from tuition and subscriptions, supplemented by school lands or a share in the interest on school funds, or exemption from taxation. The general purposes of the academies were "the dissemination of useful knowledge," "the promotion of science and literature, and the general interest of education," or "a systematic and thorough course in education, in the various English branches or in the languages." The curriculum, as analyzed by Belting, covered as wide a range as that of academies in other States and fell under the following heads: common branches, ancient and modern languages, sciences, mathematics, philosophy, social sciences, history, religion, English, accomplishments, and manual labor (to which reference will be made later).

The academy in Illinois flourished until 1850, but the opportunities for secondary education were limited to the larger and more accessible centers of population. To this extent, because attendance often involved not merely tuition fees but the cost of board and lodging, the academies were regarded as select and aristocratic. There was, too, a conflict between the popular demand for academic and for practical studies. The free school law passed in 1855 furnished the opportunity for the spread of public high schools, although several court decisions were still required to prove the legality of secondary education at public expense, and to settle the conflicts between the southern part of the State, settled mainly from the South, and the northern part settled mainly from New England.[1]

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[1] *Illinois Intelligencer*, January 6, 1819, quoted in Belting, P. E., *The Development of the Free Public High School in Illinois to 1860*, pp. 21 f. (Springfield, Ill., 1919.)

Early secondary education in Michigan. The history of secondary and higher education in Michigan opens in 1817, when the Territorial Legislature passed a bill for the founding of the Catholepistemiad or University of Michigania, somewhat on the plans of the University of the State of New York (1784) and the University of Georgia (1785), to provide higher education and to assume control over education throughout the State. The plan was conceived in great breadth, and the courses proposed for the University were more extensive than were to be found in American universities for some time. The plan never went into operation, the act of 1817 was repealed in 1821, and for the ambitious scheme originally planned there was created a University consisting of a board of trustees to whom was entrusted the sole conduct of education in the territory, with power to establish and inspect secondary schools. Although the law remained unchanged until 1837, it was as ineffective as that of 1817.

Secondary education in Michigan was provided by private and denominational schools, but the principle of a system of education from the primary school to the university, provided and maintained at public expense, continued in full vigor and was incorporated in the Constitution of 1835. Two years later, largely as a result of the efforts of Superintendent John Pierce, another act was passed creating the present university, in connection with which "branches" were to be established and supported by the regents, county taxation, and tuition. Three departments were to be provided in each branch — classical, English, and normal, and an agricultural department in at least one branch. The original plan contemplated secondary education for boys only. A number of branches were opened in 1839, and the University itself in 1841. Largely through lack of adequate support the branches languished, and in 1846 the regents decided to discontinue aid to secondary education. According to the *Report of the Superintendent of Public Instruction, 1852*, one reason for the decline of the branches was a feeling of jealousy, which led to the branches being "regarded as places for the education of the (so-called) *aristocracy* of the State, and the University, through the influence of the branches, began to be spoken of as an enemy to popular education." The Board of Regents drew from this experiment with the branches the sound inference "that local institutions thrive best under the immediate management of the citizens of the place in which they are situated, and when endowed or sustained by their immediate patrons."

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[1] On the history of secondary education in Illinois, see Belting, P. E., *op. cit.*

A typical academy curriculum. In Michigan, as in Indiana, the inadequacy of the provision of secondary education under public control was the opportunity for the emergence of private academies, which had already begun to flourish before aid was withdrawn from the branches, and increased in numbers after that. Seventy-two private institutions of secondary grade were chartered between 1830 and the date of the decision in the Kalamazoo Case, 1874, which legalized the spread of the public high school. The purposes of the academy were stated variously: for "bestowing the means upon many of acquiring not only a good but a classical education"; "for the instruction of young persons in the ancient and modern languages, or literatures, and the arts and sciences"; or "for instruction of persons in the various branches of literature and the arts and sciences." As in the academies of other States the curriculum was broad, encyclopedic, and flexible, combining preparation for college entrance with practical studies for the business of life. The program of Wesleyan Seminary, cited by Davis[1] as an illustration, offered the following subjects, in 1856:

First Term: Mental Arithmetic; Elocution; Rhetoric; Geometry, begun; Geography of the Heavens; Bookkeeping; Botany; Political Economy; Astronomy; Governmental Instructor (probably a civics manual).

Second Term: English Composition; Analysis of Words; Ancient Geography; Universal History; Geometry, completed; Trigonometry; Mental Philosophy; Elements of Criticism; Evidences of Christianity; Natural Theology.

Third Term: Modern Geography; History of the United States; Surveying and Navigation; Mental Philosophy; Logic; Agricultural Chemistry; Animal Chemistry; Analogy of Religion; Geology; Mineralogy.

Every Term: English Grammar; Analysis of Language; Written Arithmetic; Higher Arithmetic; Elementary Algebra; Higher Algebra; Anatomy and Physiology; Natural Philosophy; Chemistry; Drawing; Painting; Music; Greek; Latin; French; and German.

This represents a collection of a large number of subjects from which a student could make up his own curriculum, more or less according to his needs and unorganized except as the selection was governed by the well-defined requirements for admission to college.

The academy was not, however, a popular institution; in spite of the contribution that it made, it was looked upon as "being exclusive, snobbish, and an undemocratic institution." The basis for the rise of the public high school had already been laid in a permissive law of 1843, authorizing the organization of union school districts; clearly to take the place of the select schools, for, as Superintendent Comstock said in 1845, "The necessity of select schools is founded in the imperfect character of the primary schools. Elevate these, and the select schools will be superseded." Thirty years more were to elapse before the principle that the public high school was a part of the common school was clearly and legally defined.[1]

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[1] From *Public Secondary Education*, by C. O. Davis, p. 169. Copyright by Rand McNally & Co., Chicago, 1917.

The academy in the South. The rise of the academy in the South antedated the Revolution, and had its origin in the private effort of individual teachers or denominational groups, particularly in North and South Carolina and in Virginia, where two hundred academies were incorporated by 1850. In Georgia, the Constitution of 1777 provided for county schools at public expense; in 1783 the State began to make donations of land to county academies. With the founding of the University of Georgia in 1785, "all public schools, instituted or to be supported by funds or public moneys in this State, shall be considered members of the University." The growth of academies continued to be stimulated by further grants of land, and by the establishment of an academy fund in 1821. By 1831 there were more than one hundred academies in the State, but a decline began to set in after 1837, when the academy fund was transferred to the common school fund.

Louisiana, following the example of New York, set up the University of New Orleans to establish a college and one or more academies, supported at first by funds derived from lotteries and later by direct appropriations. The plan was abandoned in 1821, but aid to the academies was continued on condition that free tuition was provided for poor pupils. After 1847, when public aid was discontinued, the academies continued as private institutions. The curricula of the academies in the South were as extravagant and as inflated as in other parts of the country during this period, combining preparation for college with an attempt to meet the need of a wider clientèle. One principal undertook in 1803, with one assistant, to teach the following subjects: "belles lettres, rhetoric, ethics, metaphysics, Hebrew, French, Italian, algebra, geometry, trigonometry, navigation, mensuration, altimetry, longimetry,

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[1] On the history of secondary education in Michigan, see Davis, C. O., *op. cit.*

Latin and Greek, in addition to reading, writing, arithmetic, geography, and English grammar."[1]

Manual-labor institutions. It is obvious from the subjects offered by the academies that they attempted to meet a great variety of demands, both academic and practical. That they were not altogether successful is evidenced by the rise, in the second quarter of the nineteenth century, of a large number of manual-labor institutions which aimed to combine literary studies with practical work. The farmer in particular was interested in some kind of education that would help him to get the most from his land, while in cities the growth of industry led to a demand for well-trained mechanics. The idea of combining industrial and academic work had already occurred to Dr. John De La Howe, who in his will, made in 1786, provided for the establishment of a school at Lethe, South Carolina, which was opened in 1805 and continued until the Civil War.

The movement for the establishment of manual-labor institutions began about 1825, and was inspired by the work of Fellenberg in Switzerland. Its sponsors in the United States were William Maclure and Joseph Neef, and the Manual Labor Society for Promoting Manual Labor in Literary Institutions, organized in New York in 1831. According to Maclure "the adoption of some system of education, limited to the useful, omitting all the speculative and the ornamental, is positively necessary to the success of such an undertaking." The general theory underlying the advocacy of manual-labor institutions was that they provide an education that is natural, interesting, healthy, and character-forming; cultivate habits of industry, independence, and originality; diminish the cost of education, increase the country's wealth, and eliminate class distinctions.

Manual-labor schools were established in the East in Connecticut (1819), Maine (1821), Massachusetts (1824), New York (1827), and New Jersey (1830), but they met with their greatest, although temporary, success in the frontier States of the time — Ohio, Indiana, and Illinois. Academies, colleges, theological schools, and industrial institutions were established on the manual-labor principle. After 1840, most of these institutions abandoned the manual-labor feature, disappeared, or limited themselves to the academic curriculum. With the abandonment of the manual labor feature the introduction of manual training as a regular feature of secondary education was postponed for nearly half a century.[1]

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[1] See Knight, E. W. *Public Education in the South,* pp. 73 ff. (New York, 1927.)

End of the academy period. The academy movement reached its highest development in the country as a whole by 1850. There were at that time 6,085 academies with an enrollment of 263,096 pupils, taught by 12,260 teachers, and in receipt of an annual estimated income of $5,831,179.[2] If these figures are accurate, one in every seventy of the white population attended an academy — a proportion not even yet realized in most European countries, and a little more than half of the proportion in high schools at the present time. This represents a remarkable development of facilities for secondary education at that time as compared with contemporary Europe. It must, however, be remembered that little is known about the average length of schooling of the pupils or about the standards of work, nor in most cases of the history and duration of many of the academies. What was said of the academies in 1819 by a writer in *Blackwood's Magazine* ("On the Meaning of Education and the State of Learning in the United States of America"), allowing for his failure to understand their real purpose in a new society, was corroborated by Rev. Timothy Flint in the quotation already cited:[1]

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[1] A brief list of manual-labor institutions includes the following: In New York State — Yates School, Oneida Institute of Industry, Aurora Manual Labor Seminary, Genesee Manual Labor School; in Illinois — Franklin Manual Labor College, Chatham Manual Labor School, Illinois College, Knox Manual Labor College; in Indiana — Indiana Teachers' Seminary at Madison, Wabash Manual Labor College, Indiana Baptist Manual Labor Institute in Franklin County, Western Scientific and Agricultural College; in Ohio, besides the Oberlin Collegiate Institute, seven academies refer in their articles of incorporation to the inclusion of manual labor as part of their work. (See Miller, E. A., *op. cit.*, pp. 128 ff.)

[2] Barnard, H. *American Journal of Education*, I, p. 368.

> The Americans, according to this writer, take a strange delight in high-sounding names and often satisfy themselves for the want of the thing, by the assumption of the name. These academies are not always exclusively classical schools; some are partly appropriated to education for the counter and the counting-room; and as far as this object goes, there is no striking defect in them; it not being a very difficult matter to teach a lad to count his fingers and take care of his dollars.[2]

The extravagance to which the writer refers is illustrated in the variety and multiplicity of subjects taught in the academies; it is not improbable that during the period under consideration more than one hundred and fifty subjects or parts of subjects are listed. There appears to have been no philosophy or principles underlying the educational offerings of the academies except that they attempted to bring educational facilities within the reach of all, to prepare for college, and to meet the assumed needs of those who wanted a practical training — a need that was satisfied by talking about rather than doing practical things.

It must be recalled that the development of the academy coincided with a period of gradual change toward the full implications of the meaning of democracy. It was a period of unbounded optimism, inspired by the apparently illimitable resources and the availability of land. There was everywhere a willingness to try new things, but this willingness had no foundation in real scientific or intellectual interest so much as in a curiosity about the novel and sensational. The Jacksonian era was not only marked by political change, but it inaugurated a period of innovation, invention, and growing national self-consciousness. "Whereas Washington devoted his attention to bringing his gardens to an exquisite perfection, the men of the thirties and forties sought novelty rather than perfection."[1] In this curiosity can be found an explanation of the inflated curricula of the academies.

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[1] See pp. 411 f.

[2] Quoted in Brown, *op. cit.*, p. 246.

The academy answered a real need. In spite of or perhaps because of its extravagance, the academy filled a real need in meeting the growing demands of a new country and a new age. It paralleled the development of democracy and democratic institutions, and catered to a far broader clientèle than could be reached by the traditional Latin grammar school. It aimed, in a somewhat fumbling fashion to be sure, to broaden the traditional conception of liberal education, and in so far as a definite part of its work was intended to give a general and practical education to students who were not going on to college, it became itself "the people's college." Despite the novel and perhaps sensational features, the academy contributed to the introduction an appreciation of new subjects in education at a time when the American college and the European secondary school refused to see virtues in any but the traditional subjects; largely through the influence of the academy new subjects began to be recognized for college entrance: geography, 1807; English grammar, 1819; algebra, 1820; geometry, 1844; ancient history, 1847. The academy frequently was in advance of the colleges in recognizing the place of the sciences in education.[2]

In so far as many academies were residential, and thus served a wider than local clientèle, they furnished opportunities for breaking down provincialism. The elaborate exercise and exhibitions which most academies promoted, formal and stilted though they may appear to-day, helped to keep alive and to foster in many communities an interest in education beyond the rudiments. Another important contribution to the development of secondary education in the United States was the provision made in the academy for the education of girls, either in coeducational or in independent institutions.[1] Finally, until the normal school was established as the proper institution for preparing elementary-school teachers, the academy, as had been the intention of Franklin in his original proposal, annually sent out a supply of teachers, especially in New York State, who, if they were not adequately prepared professionally, were at least sufficient masters of the subjects that they were to teach.[2]

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[1] Fish, C. *The Rise of the Common People*, p. 105. The whole volume should be read as a background for the period of the academy and the rise of the high school.

[2] See Broome, E. C. *A Historical and Critical Discussion of College Admission Requirements*. (New York, 1902.)

Transition character of the academy. The academy was, however, destined to be a temporary institution only since it did not fulfill the democratic ideal of a public system of education, free from the lowest to the highest stage. In most States it was public only in the sense that it was an institution incorporated under the law; in essence, however, it was private because it charged fees, which in some places were remitted for a few students in return for public assistance. By the middle of the nineteenth century opposition to the academy began to develop on the ground that it was a select, exclusive, and aristocratic school, catering chiefly to those who could pay fees and providing only for the more able children of the poor. Horace Greeley even objected to it because of its devotion to dead languages, which was true in fact, as well as because it set up class distinctions.[3] From this opposition it was an easy step to the argument that the many ought not to be taxed for the benefit of the few (an argument that was soon to be used against the public high school, too), and a movement now arose for the establishment of a system of free public high schools, supported by public taxation, equally open to all, and responding to the genius of the country's democratic institutions. The progress of public elementary schools, and the organization of public authorities for the provision and control of education, made the realization of this demand within the range of practical politics. The opposition to the academy cannot detract, however, from the importance of its contribution in the provision and development of facilities for secondary education. More than adequately, before the middle of the nineteenth century, it supplemented the halting steps of the public high schools which began to spring up here and there. When the public high school emerged into full recognition after the Civil War, it was but the academy transformed into a completely public institution, maintained wholly at public expense, and free and equally open to all.

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[1] See Chapter X.

[2] See Miller, G. F., *op. cit.*, pp. 131 ff.; Carnegie Foundation, Bulletin No. 14, *Professional Preparation of Teachers for American Public Schools*, pp. 31 f.

[3] See Davis, C. O., *op. cit.*, pp. 166 f., and Gifford, W. J., *op. cit.*, p. 75.

Rise and establishment of the public high school

State organization and education. The academy, in spite of its real contribution to the progress of education in the United States, and although it kept pace with the growing demands of the country in the early decades of its development, was not regarded as a genuinely public institution fully maintained by public taxation, open to all on equal terms, and subject to the supervision of a public authority. Its spread until 1850 was due to the fact that, in most instances, the State Governments were not sufficiently well advanced either to enforce or to support a system of public high schools, rather than to a rejection of the principle. Massachusetts and other New England Colonies had already established both the precedent and the principle of schools provided and maintained by public authority, although toward the end of the eighteenth century they were unable to put either successfully into effect. The liberal theorists and politicians of the early Republic were unanimous in urging public systems of education, extending from the lowest to the highest grades. Contemporary theory and legislative proposals were predominantly in favor of public education under the control of the State, and exercised a strong influence on the minds of the founders of the Republic and on the organization, proposed or realized, in such States as New York, Georgia, and Michigan.

As early as 1779, Thomas Jefferson presented in the Virginia Legislature "A Bill for the More General Diffusion of Knowledge," for the organization of elementary schools in each hundred, from which each visitor

> is annually to chuse the boy, of best genius in the school, of those parents who are too poor to give them further instruction, and to send him forward to one of the grammar schools, of which twenty are proposed to be erected in different parts of the country, for teaching Greek, Latin, geography, and the higher branches of numerical arithmetic. Of the boys thus sent in any one year, trial is to be made at the grammar schools one or two years, and the best genius of the whole to be selected and continued six years, and the residue dismissed.

After an education for six years at public expense, a further selection was to be made of pupils to be advanced to William and Mary College.[1] The plan failed but the idea, shorn of its selective feature, continued.

The Constitution of Indiana, adopted in 1816, provided that:

> It shall be the duty of the general assembly, as soon as circumstances will permit, to provide by law for a general system of education, ascending in regular gradation from township schools to a state university, wherein tuition shall be gratis and equally open to all.

The same principle was inherent in a declaration of the Tennessee Legislature in 1817, to the effect that

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[1] See Ford, P. L. *The Writings of Thomas Jefferson*, II, pp. 220 ff. (New York, 1892–99.)

Institutions of learning, both academies and colleges, should ever be under the fostering care of this legislature, and in their connection with each other form a complete system of education.

Importance of these provisions. The fate of these and other similar proposals was indicated in the history of the academies. Although the federal provision of education was excluded by the Constitution, Congress sought to facilitate the development of educational systems by setting aside, in 1785, the sixteenth lot in each township in the Northwest Territory for the maintenance of schools. The purpose of this land grant was further defined, in the Ordinance of 1787 for the government of this Territory, in the following terms:

> Religion, morality and knowledge being necessary to good government and the happiness of mankind, schools and the means of education shall be forever encouraged.

Although immediate results did not flow from these grants, they served to furnish the basis for the establishment of public systems of education as soon as public opinion was ripe for them. For the time being, the development of a system of secondary education under state law in Massachusetts indicated the difficulty of enforcement with a population that was unstable and moving. A similar reason may be adduced for the failure of the Connecticut statute of 1798, modified in 1799, which provided:

> Any school society shall have liberty, by a vote of two thirds of the inhabitants present in any legal meeting, warned for the purpose, to institute a school of a higher order, for the common benefit of the society, the object of which shall be to perfect youth admitted therein in reading and penmanship, to instruct them in the rudiments of English grammar, composition, arithmetic and geography, or, on particular desire in the Latin and Greek languages; also in the first principles of religion and morality, and in general to form them for usefulness in society. And no pupils shall be admitted into said school except such as shall have passed through the ordinary course

> of instruction in the common schools, and shall have attained to such maturity in years and understanding, as to be capable of improvement in said school, in the opinion of the overseers, and shall by them, or any three of them, be admitted therein; and if, at any time, it shall so happen, that more pupils are admitted, than can be accommodated or instructed in said school together, they shall be instructed in such course and order as to give all an equal opportunity.[1]

This statute had in it the germs of a secondary education growing out of elementary education, and merging "on particular desire" into the college preparatory school; unfortunately the statute remained a dead letter, and the development of the state system of secondary education was postponed for nearly fifty years.

Rise of the public high school in Boston. In the mean time, however, there was developing side by side with the academies, the local public high school, which arose in response to a demand for schools of a "higher order" than the elementary school. The new era in American secondary education was inaugurated by the opening of the English Classical School for boys in Boston, in 1821, as a result of the report of a sub-committee appointed in the previous year.

> In 1820 the attention of the School Committee was called to this subject. The question of establishing a seminary which should furnish the young men who are not intended for a collegiate course of studies, and who have enjoyed the usual advantages of the public schools, with the means of completing a good English education and of fitting themselves for all the departments of commercial life, was referred, June 11, 1820, to a sub-committee of five,...men well known as among the most eminent of the town, and representing the mercantile, clerical, legal and the journalist professions.[2]

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[1] Griffin, O. B. *The Evolution of the Connecticut State School System*, pp. 9 f. (New York, 1928.)

[2] Edmunds, J. W. *English High School Semi-Centennial Anniversary*, p. 76. (Boston, 1871.) Quoted in Grizzell, E. D. *Origin and Development of the High School in New England before 1865*, p. 42. (New York, 1923.)

On November 9, 1820, it was voted to establish an English Classical School on the basis of the sub-committee's *Report*, which so clearly sets forth the reasons governing the establishment of the high school as a public institution that it deserves to be quoted in full:

> Though the present system of public education, and the munificence with which it is supported, are highly beneficial and honorable to the Town; yet in the opinion of the Committee, it is susceptible of a greater degree of perfection and usefulness, without materially augmenting the weight of the public burdens. Till recently, our system occupied a middle station: it neither commenced with the rudiments of Education, nor extended to the higher branches of knowledge. This system was supported by the Town at a very great expense, and to be admitted to its advantages, certain preliminary qualifications were required at individual cost, which have the effect of excluding many children of the poor and unfortunate classes of the community from the benefits of a public education. The Town saw and felt this inconsistency in the plan, and have removed the defect by providing Schools in which the children of the poor can be fitted for admission into the public seminaries.
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> The present system, in the opinion of the Committee, requires still farther amendment. The studies that are pursued at the English grammar schools are merely elementary, and more time than is necessary is devoted to their acquisition. A scholar is admitted at seven, and is dismissed at fourteen years of age; thus, seven years are expended in the acquisition of a degree of knowledge, which with ordinary diligence and a common capacity, may be easily and perfectly acquired in five. If then, a boy remain the usual term, a large portion of the time will have been idly or uselessly expended, as he may have learned all that he may have been taught long before its expiration. This loss of time occurs at that interesting and critical period of life, when the habits and inclinations are forming by which the future character will be fixed and determined. This evil, therefore, should be removed, by enlarging the present system, not merely that the time now lost may be saved, but that those early habits of industry and application may be acquired, which are so essential in leading to a future life of virtue and usefulness.
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> Nor are these the only existing evils. The mode of education now adopted, and the branches of knowledge that are taught at our Eng-

lish grammar schools, are not sufficiently extensive nor otherwise calculated to bring the powers of the mind into operation nor to qualify a youth to fill usefully and respectably many of those stations, both public and private, in which he may be placed. A parent who wishes to give a child an education that shall fit him for active life, and shall serve as a foundation for eminence in his profession, whether Mercantile or Mechanical, is under the necessity of giving him a different education from any which our public schools can now furnish. Hence, many children are separated from their parents and sent to private academies in this vicinity, to acquire that instruction which cannot be obtained at the public seminaries. Thus, many parents, who contribute largely to the support of these institutions, are subjected to heavy expense for the same object, in other towns.

The Committee, for these and many other weighty considerations that might be offered, and in order to render the present system of public education more nearly perfect, are of the opinion that an additional School is required.

They therefore, recommend the founding of a seminary which shall be called the English Classical School, and submit the following as a general outline of a plan for its organization and of the course of studies to be pursued.

1st. That the term of time for pursuing the course of studies proposed, be three years.

2ndly. That the School be divided into three classes, and one year be assigned to the studies of each class.

3rdly. That the age of admission be not less than twelve years.

4thly. That the School be for Boys exclusively.

5thly. That candidates for admission be proposed on a given day annually; but scholars with suitable qualifications may be admitted at any intermediate time to an advanced standing.

6thly. That candidates for admission shall be subject to a strict examination, in such manner as the School Committee may direct, to ascertain their qualifications according to these rules.

7thly. That it be required of every candidate, to qualify him for admission, that he be well acquainted with reading, writing, English grammar in all its branches, and arithmetic as far as simple proportion.

8thly. That it be required of the Masters and Ushers, as a necessary qualification, that they shall have been regularly educated at some University.

The Boston curriculum. The school, when organized, was to offer the following course of instruction:

The Studies of the First Class to be as follows:

Composition
Reading from the most approved authors
Exercises in Criticism comprising critical analyses of the language, grammar, and style of the best English authors, their errors and beauties
Declamation
Geography
Arithmetic continued

The Studies of the Second Class:

Composition
Reading
Exercises in Criticism
Declamation
} continued.
Algebra
Ancient and Modern History and Chronology
Logic
Geometry
Plane Trigonometry; and its application to mensuration of Heights and Distances
Navigation
Surveying
Mensuration of Superficies and Solids
Forensic Discussions

The Studies of the Third Class:

Composition
Exercises in Criticism
Declamation
Mathematics
Logic
History; particularly that of the United States
} continued.
Natural Philosophy, including Astronomy
Moral and Political Philosophy[1]

The name "English High School" which began to be used in 1824, was changed back to "English Classical School" in 1832, but was finally adopted in 1833.

The term "high school." This appears to have been the first time that the term "high school" was applied to a public school in this country. It had already been employed by James Edward, who opened a Lancasterian school in Philadelphia in 1816, and in 1817 advertised his school as the Lancasterian High School, in which he undertook to teach Latin and French on the monitorial plan. Edward referred to an address "To the Philadelphia Society for Promoting Public Economy and the Citizens of Philadelphia" (1817). The author of this address, Benjamin Shaw, a former member of the British and Foreign School Committee in England and then a resident in Philadelphia, had mentioned the possibility of applying the Lancasterian method to Latin, Greek, geography, astronomy, and mathematics, and cited the work of James Pillans, rector of the Edinburgh High School. Edward resigned from his school in 1818. His rival, Edward Baker, who opened the Real Lancasterian School in 1817, also undertook to teach higher branches (geometry, astronomy, elocution, and natural philosophy; foreign languages were not mentioned), but did not use the term "high school." [1]

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[1] See Brown, E. E., *op. cit.*, pp. 298 ff.

The adoption of the term in Boston was probably not due to its use in Philadelphia, but to the widespread interest at this time in Professor John Griscom's account of the Lancasterian system of monitorial instruction in the Edinburgh High School. His account of *A Year in Europe* (first published in 1818–19, and again in 1824) was reviewed in the *North American Review* in January, 1824, in which the reviewer pointed out that the cost of instruction in the Boston Latin School was twice as much as in the Edinburgh High School. The possibility of adopting the monitorial plan in secondary schools had been discussed in 1810, in the *Edinburgh Review*, was again referred to in the reports of the British and Foreign School Society for 1814 and 1816, and was strongly advocated by Bentham in his

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[1] Ellis, C. C. *Lancasterian Schools in Philadelphia*, pp. 27 ff. (Philadelphia, 1907.)

Chrestomathia in 1816. These discussions were brought to the attention of American educators in the *United States Gazette* for July 26, 1817, which referred to the work of Rector Pillans at the Edinburgh High School. Thus Griscom's book and the review focussed attention on the High School at a time when there was already beginning a desire to extend the work of the common school into the higher branches.

Griscom himself had formulated a plan, in 1821, to establish a private secondary school modeled on the method of the Edinburgh High School, but it had failed owing to the opposition of New York teachers "who dread the effects of such an establishment on their high prices." Three years later he succeeded in organizing the New York High School Society, which in 1825 opened the High School for Boys to carry out its aims, which were as follows:

> We wish to see established in our city a system of education congenial with our republican institutions, and commensurable with our means and wants. We should be glad to see an institution supported by law at the public expense, for instruction in classical learning, and in some of the higher branches of useful science, which should be open to all classes of society... It is not expected that individual efforts will establish a seminary of learning upon such a basis as this, but we confidently anticipate that the High School will, in a great measure, be a substitute for it; and that it will go far towards supplying the defects of our present means of education.[1]

The Boston school a model. The school attracted a great deal of attention, and brought inquiries from "several cities and towns of the United States," according to Griscom. It was followed, in 1826, by the opening of the Female High School. Schools of the same type were established at Troy, Geneseo, Buffalo, and Philadelphia (Franklin High School). The aim underlying this movement was to bring higher education within the reach of the laboring classes, for "by the high school system expense is reduced and useful subjects are included." Reaction against the monitorial system seems to have set in, and interest in it appears to have died down within ten years of the establishment of the first school in New York.[1]

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[1] See Gifford, *op. cit.*, p. 22 f.

It thus seems highly probable that the adoption of the name "English High School," in place of "English Classical School," was based more on the idea inherent in the high school as a school giving an education beyond that of the elementary school and accessible to all because of the low cost, rather than directly on the use of the name in the Edinburgh school. The monitorial system of instruction does not seem to have been employed in the English High School, but in August, 1825, the Common Council considered a report "on the subject of a High School for Females, upon the plan of monitorial or mutual instruction," and in November of that year a public notice was issued under the heading "Monitorial High School for Girls," announcing that the School Committee would proceed to the appointment of a master for this school "to be conducted upon the system of *monitorial* or *mutual instruction*." The school was opened in 1826, but closed two years later because the number of applicants exceeded the accommodations, and because the School Committee was unable to meet the additional cost.

Spread of the high school idea in Massachusetts. The establishment of the English High School in Boston served as an example throughout New England. Worcester established a Female High School in 1824, corresponding to the Latin Grammar School for boys, and at the same time there was opened a winter school of five or six months duration similar in aims to the Boston English High School. A classical and English high school for both sexes was not organized until

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[1] Anderson, L. F. "The System of Mutual Instruction and the Beginnings of the High School"; in *School and Society*, November 16, 1918, VIII, pp. 571 ff.

1845. Plymouth opened a high school in 1826; Salem followed in 1827, and in 1833 it was:

> Voted that no charge be made in the Latin and High School provided, that the privilege of pursuing whatever branches of education are included within the instruction provided at the expense of the town be offered without partiality, without restraint, and equally to all children in the town who may be qualified.[1]

In 1831, Lowell established a high school, "designed both to perfect the English education ... begun in the primary and grammar schools; and also to fit young men for college." By this date, however, there had already been passed, in 1827, the Massachusetts law requiring towns of five hundred families to employ a teacher competent to teach the common branches, United States history, bookkeeping, geometry, surveying, and algebra; towns with a population of four thousand inhabitants were required in addition to provide a teacher for Latin, Greek, history, rhetoric, and logic. The law thus aimed to provide the two types of secondary education that were becoming usual — preparation for college, and preparation through advanced English branches for practical life. The absence until 1837 of a state department to administer the law was an obstacle to its success. Despite this lack, twenty-six high schools were established before 1840, including a number in towns that were not required to do so by the law. This movement coincided with a period of prosperity, and slowed up considerably when this period was followed by economic depression after 1837.[2]

Elsewhere in New England. In Maine high schools were established in Portland (1829), and Bangor (1835); and in New Hampshire in Portsmouth (1826 as an experiment, and definitively in 1836). The development in Connecticut came in the next decade. Before 1840 a number of institutions, private in character and not clearly organized as secondary schools, bore the title "high school" (Bridgeport, 1826; North Glastonbury, 1828; East Hartford, 1828 (possibly earlier); and Guilford, 1838); but the first public high school in the State was that established in 1840, in Middletown. The movement for its establishment was inspired by an address, delivered by Henry Barnard before a county convention held in Middletown in 1838, in which he urged the need of a well-graded school system culminating in a high school, a thesis which he had already developed earlier in the year in Hartford and which also initiated the high-school movement there. A committee, appointed to consider the subject, issued a report which referred

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[1] Grizzell, E. D., *op. cit.*, p. 66. (New York, 1923.)

[2] See Grizzell, *op. cit.*, chap. II; and Inglis, A. J. *Rise of the High School in Massachusetts*, pp. 28 ff. (New York, 1911.)

> to the advantages that would flow from such an organization as would render private schools unnecessary — in restoring the interest and attention (without which no school can succeed) of those parents who are compelled to avail themselves of them, to their legitimate objects, the public schools — in the saving of time that would be effected in the acquisition of an education — and though last, not least, in extending in a government of the people the blessings of a good education equally to all.[1]

The work of this school consisted until 1847 mainly of the higher branches of the common school, but many of the early high schools were somewhat indefinite in character except for the fundamental principle that they were intended to provide an education higher than that found in the elementary schools.

The Hartford School. The agitation for the establishment of a public high school in Hartford began in 1838, through the efforts of Henry Barnard, Horace Bushnell, and Thomas Gallaudet. In that year Barnard had succeeded in securing the creation of a State Board of Education, of which he became secretary, and in the same year, as president of the Young Men's Institute, he delivered the address, already referred to, in which he developed a plan to meet the educational and moral wants of cities, and which was in essence a plea for a graded school system to include primary, grammar, and high schools, each offering courses of four years' duration. The high school

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[1] Quoted in Griffin, *op. cit.*, p. 103.

> should offer a higher elementary education than can be given in the secondary intermediate schools, or the common schools as now constituted, and at the same time furnish an education preparatory to the pursuits of commerce, trade, manufactures, and the mechanical arts. All that is now done in our best private schools for the children of the rich and the educated, should be done for the children of the whole country.[1]

Barnard had already drawn the attention of the legislature to the absence of public provision for higher education, to the failure to pursue the State's early tradition in education, and to the unsatisfactory character of much of the private education available.

The proposal to establish a high school in Hartford was taken up in 1839, but was not crowned with success until 1847. Barnard and his colleagues were unremitting in their zeal, in spite of the local opposition and the temporary reaction in the State in educational matters. The opposition was based on the common antagonism to new ventures, to the fact that those who could afford it were satisfied with existing provisions in private schools, and to the refusal to pay taxes for the benefit of other people's children. The school was finally opened on December 1, 1847; a triumph for those who had worked energetically for a "republican" high school open to all, rich and poor, on equal terms. Its aims represented the advanced thought of the time, which Barnard defined in the dedicatory address at the opening of the school, in the following words:

> It meets the demands of our age for an education in science which shall make the wind and stream, and the still more subtle agents of nature, minister to our material wants, and stimulates in all directions, the inventive faculties of man, by which mere muscular toil

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[1] Griffin, *op. cit.*, p. 62.

can be abridged, and made more effective. At the same time it does not ignore those apparently less practical studies, especially the mathematics and classics, which the gathered experience of successive generations of teachers, and the profoundest study of the requirements of the mind of youth, and the disciplinary and informing capabilities of different kinds of knowledge, have settled to be the best, although not, as I hold, the only basis of a truly liberal scheme of general or professional education.[1]

Other Connecticut schools. Other high schools soon followed in New Britain (1850), Waterbury (1851), New London (1852 or 1853), Norwich (1856), and New Haven (1859). Much opposition had to be overcome. The difficulties attending the establishment of the high school at Norwich were thus summarized by one of its founders, at the dedication of the school building, in 1856:

> ... The lower schools up to the grade of the grammar school were well sustained. Men were to be found in all our communities who had been themselves educated up to that point, and understood, practically, the importance of such schools, in sufficient numbers to control popular sentiment, and secure for them ample appropriations and steady support. But the studies of the high school, Algebra, Geometry, Chemistry, Natural Philosophy, Ancient History, Latin, Greek, French and German, were a perfect *terra incognita* to the great mass of the people. While the High School was a new thing and while a few enlightened citizens had the control of it, in numerous instances it was carried to a high state of perfection. But after a time the burden of taxation would begin to be felt. Men would discuss the high salaries paid to the accomplished teachers which such schools demand, and would ask, "To what purpose is this waste?" Demagogues, keen-scented as wolves, would snuff the prey. "What do we want of a High School to teach rich men's children?" they would shout. "It is a shame to tax the poor man to pay a man $1800 to teach the children to make *x's* and pot-hooks and gabble parley-vous." The work would go bravely on; and on election day, amid great excitement, a new school committee would

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[1] Barnard, H. *Contributions to the History of the Public High School of Hartford*, pp. 251 f., quoted in Griffin, *op. cit.*, p. 79.

> be chosen, in favor of retrenchment and popular rights. In a single day the fruit of years of labor would be destroyed.[1]

In New Haven it was objected "that the public schools are essentially charitable institutions, and that the youth attending them have no right to demand instruction at public expense beyond the simple elements taught in an ordinary District School," and besides it was not right to tax a man for the education of his neighbor's children, and that it was no more a public obligation to educate such children than to clothe them.[2]

The policy of establishing high schools by local decision instead of under state regulations was followed in Vermont and Rhode Island. In the former State a high school was opened at Brattleboro in 1841, which struggled for some years because the rich were loth to give up their private select schools and the poor regarded the public high school as designed for the children of the rich. Windsor established a high school in 1843, where it was possible to "pursue a regular course of studies, beginning with the alphabet and continuing as far as in our best academies." In Burlington the high school resulted from a merger of a union school with an academy, in 1849–50. Before 1865, eleven public high schools had been established in Vermont.

The high school in Rhode Island. The high-school movement in Rhode Island began in Providence, in 1828, with the report of a committee which urged the provision of a high school, in the following terms:

> If, in addition to these two grades of schools, a single school for the whole town be established, of a more elevated character, to enter which it shall be necessary to have been proficient in all the studies

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[1] *Norwich Weekly Courier*, November 25, 1856; quoted in Cubberley, E. P. *Public Education in the United States*, pp. 196 f. (Boston, 1919.)

[2] Griffin, *op. cit.*, p. 149. On the early establishment of high schools see Griffin, *op. cit.*, chaps. V and VI, and Grizzell, *op. cit.*, chap. VIII.

> of the grammar schools, and in which should be taught a more perfect and scientific knowledge of geography, bookkeeping, arithmetic, algebra, geometry, navigation, moral and natural philosophy, natural history, the elements of political economy, and the Constitution of the United States, and the Latin and Greek languages; we think that our system of instruction would be such as to do honor to the public spirit of the commercial and manufacturing metropolis, but not at all beyond what is demanded by the advanced intelligence of the age. Whether a high school, of somewhat the same character, for girls, might not also be desirable and expedient, would be a matter for future consideration.[1]

The recommendations of this Committee were not adopted, but the matter was kept alive, and in 1837 another Committee was appointed to investigate what had been done in a number of Massachusetts cities. The report of the Committee for the establishment of a completely graded system was adopted in 1838, but politics, economic depression, and the revival of opposition ("the high school would educate children above working for their support," "poor children would never be seen in it," and "the city was already too much in debt"), postponed the opening of the high school until 1843. In Newport the School Committee urged, in 1844, that the time had come for an advancement in the upper schools "upon higher branches of study than have yet been pursued," such as natural and mental philosophy, political economy, and the science of government.

> The Committee would ask, if such subjects as these they have named are not something more than mere accomplishments — if they are not essential parts of a common school education; essential parts of that education which every free community ought to be trying, at least, to devise some way of furnishing its rising generation? Is it not time, in short, that we began to think seriously of carrying our school system to its proper height, while we attend to the enlargement and expansion of the base?

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[1] Barnard, H. *American Journal of Education*, III, 1828, p. 391; quoted in Grizzell, *op. cit.*, pp. 251 f.

A school was opened in 1843, but it passed through a series of difficulties before it was fully established as a high school in 1865, by which date seven high schools had already appeared in Rhode Island.[1]

That the development of the public high school should have taken place in the cities, between the thirties and the fifties, was natural; the Massachusetts Law of 1827 stands out as an exception. This period saw a rapid development of cities, due to industrial progress and as centers of distribution, which arose with the development of railroads and improved means of communication. Local governments began to be better organized in these centers, and with the advancement of the standards of the elementary schools there followed a demand to crown the systems with public high schools, free and open to all, in place of the private or subsidized academies.

In New York State. The high-school movement began in New York State in 1847, when the committee on colleges, academies, and common schools began to receive petitions for the establishment of union schools. By special acts passed in this year there were established the first public high schools in the State — the Lockport Union School and the New York (City) Free Academy. Before the enactment of the Free School Act in 1853, ten public secondary schools were established by special acts — a practice which was continued even after 1853. All these schools were supported by taxation and by tuition.

The establishment of these schools did not proceed without much opposition. Horace Greeley, for example, was opposed to the provision of an advanced education for the favored few, and urged that the money expended on the free academy for the intelligent and prosperous could be better used for the weak, unfortunate, and destitute members of the community. There also appeared the common argument against the extension of education at public expense that the State had no right to tax one person for the education of his neighbor's children, especially for an education that would enable an individual to excel his fellows. Another line of attack was that a public institution could not give religious instruction. There was, in New York State, the further opposition from the academies, which by this time felt that they had acquired vested interests. The day of the public secondary school had, however, arrived, and although its more complete development was postponed until after the Civil War, nothing could now check its spread and adoption.[1]

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[1] For Vermont and Rhode Island see Grizzell, *op. cit.*, chaps. IX and X.

In Pennsylvania. High schools were established by special legislation in Pennsylvania, until the enactment of a general law in 1854 authorized the establishment of graded schools and the study of higher branches. In 1838 Philadelphia opened the Central High School in accordance with legislative permission, granted in 1836; high schools were established at Harrisburg in 1837, in Pittsburgh in 1849, and in Easton in 1850. In 1849 the Central High School of Philadelphia was granted power to confer degrees; this grant became the forerunner for obtaining similar power for the New York Free Academy, which began to grant degrees in 1854 and became the College of the City of New York in 1866, and for the Baltimore Central High School which, first established in 1839, became the Baltimore City College in 1866.

In Ohio. The development of high schools in Ohio was also promoted by special legislation. As early as 1830 the High School of Elyria, and in 1831 the Woodward High School, Cincinnati, were chartered, but it is not clear whether these were publicly supported schools. Superintendent Samuel Lewis proposed a general permissive law as early as 1838, on the following grounds:

> There are some townships that have the means and the desire of

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[1] See Gifford, *op. cit.*, p. 75; and Miller, G. F., *op. cit.*, pp. 43 f.

> establishing central township schools or academies, and in most of our townships the youth over twelve years of age could with convenience attend such a school. The number of townships now prepared for this measure is small, but will be increasing. I recommend, therefore, provision giving the whole number of directors in the township authority to establish such a school, and assess upon the township such sum of money as may be required for that purpose, and to this end they should from their own number appoint a board of five, who should for the time being control such central school. The mere passage of the law could do no harm to those townships who would refuse to avail themselves of its provisions, and would give to those desiring the privilege, the right to exercise it.[1]

No action followed upon this recommendation, but high schools were established in Cleveland and Columbus in 1846, and in 1847 a law was passed, applicable at first to Dayton and Akron only, and then extended to all cities and incorporated towns in which a special city or town school organization might be set up, on petition of two thirds of the inhabitants. This law empowered the board of education to establish "a central grammar school, where instruction should be given in the various branches and parts of study not provided for in the primary schools and yet requisite to a respectable English education." High schools were established in Akron and Cincinnati in 1847 and in Toledo in 1849.

The spread of high schools in the larger centers of the country may be seen from the following list:

New Orleans	1843	San Francisco	1858
Detroit	1844	Chicago	1856
Lancaster, Pennsylvania	1846	Dubuque, Iowa	1858
Racine, Wisconsin	1852	Columbus, Indiana	1859
St. Louis	1853	Burlington, Iowa	1863

Early definitions of the high school. By 1850, the ideal of some of the early founders of the Republic was now generally recognized. It finds its expression in the definitions of the scope of education by the two educational leaders of the day. Thus Horace Mann, in 1849, defined the purpose of American education as follows:

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[1] Ohio Documents, 37th G.A., Doc. 32, p. 38; quoted in Miller, E. A. *The History of Educational Legislation in Ohio from 1803 to 1850*, p. 76.

> Under our republican government it seems clear that the minimum of education can never be less than such as is sufficient to qualify each citizen for the civil and social duties he will have to discharge; such an education as teaches the individual, the great laws of bodily health, as qualifies for the fulfillment of parental duties; as is indispensable for the civil function of a witness or a juror; as is necessary for the voter in municipal and national affairs; and finally, as is required for the faithful and conscientious discharge of all those duties which devolve upon the inheritor of a portion of the sovereignty of this great Republic.[1]

At about the same time Henry Barnard gave his definition of the public high school, which he had already formulated ten years earlier:

> By a public or common high school, is intended a public or common school for the older and more advanced scholars of the community in which the same is located, in a course of instruction adapted to their age, and intellectual and moral wants, and, to some extent, to their future pursuits in life.[2]

The richer and populated cities found no difficulty in putting these ideals into practice. It was in the smaller localities, in which the district school system had become entrenched, that some stimulus and guidance were required to promote the provision of educational opportunities beyond those of the elementary school.

Early Massachusetts high school legislation. In Massachusetts the development of a state system of secondary education was promoted by the Law of 1827, to which reference has already been made. The full operation of this law was retarded by the absence of a central authority to enforce it, and by a measure, passed in 1840, relieving any town from the requirement of establishing a secondary school on condition that it raised annually "twenty-five per cent more than the greatest sum ever raised by assessment by said town for this object, before the passage of this act." This measure was repealed in 1848, but many towns continued to remain delinquent, and another relief measure was passed in 1850.

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[1] *Tenth Annual Report of the Massachusetts Board of Education* (1849), p. 17.

[2] *Fifth Annual Report of the Superintendent of Common Schools of Connecticut* (1850), pp. 25 ff.

It was not until 1859, however, that a definitive law was passed upon which the modern high school has been built. The curriculum recommended in 1827 had been modified in 1857. The law of 1859 required the establishment of elementary schools, and prescribed the subjects to be taught therein. Further, "every town may and every town containing five hundred families, or householders, shall" maintain a school in which instruction should be given in general history, bookkeeping, surveying, geometry, natural philosophy, chemistry, botany, civil policy of the Commonwealth and the United States, and the Latin language (besides orthography, writing, English grammar, geography, arithmetic, algebra, vocal music, drawing, physiology and hygiene continued from the elementary schools). Every town containing four thousand inhabitants was required, in addition to these subjects, to provide instruction in Greek, French, astronomy, geology, rhetoric, logic, intellectual and moral science, and political economy. Provision was made for the creation of high school districts by two adjacent towns having each less than five hundred families or householders. This law thus provided for lower and higher secondary schools, and supplied the main outlines for the progressive development of secondary education.[1]

Early legislation elsewhere. In New York State, the Union School Act of 1853 permitted the legal voters of a district or two or more adjacent districts to create a board of education, with the right to establish "an academical department" or to take over and become trustees of an existing local academy. There were thus continued, side by side, the private academy and the union school, both of which were under the general supervision of the State of New York. The law of 1853 made the establishment of public high schools possible; before this could be realized the conflicts between the claims of the traditional academy and the public high school had to be settled.[1]

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[1] Inglis, A. J., *op. cit.*, pp. 32 f.

The method of promoting the development of high schools adopted in New York was the one common in other States at the initiation of the movement. Iowa permitted graded or union schools in 1848, and in the following year the formation of grades to teach the higher branches was allowed. County high schools were authorized in 1858. In California, any city, town, or village with more than four hundred pupils was permitted, in 1851, to organize high schools on petition of two thirds of the voters; districts were also permitted to combine for the provision of union high schools, although for the time being little use was made of the permission. In 1853, each township in Ohio was given the power to establish a high school. The provision of high schools in Illinois dates from 1855, when the free school law, providing for the organization of union districts under publicly elected boards of trustees, was passed; the establishment of township high schools was sanctioned under a general school law of 1872, which replaced special charter legislation.[2] In Indiana, a school law passed in 1852 and providing for the establishment of a system of free public schools maintained by public taxation, was declared unconstitutional two years later, and progress there was retarded until the enactment of a similar law, later held to be constitutional, in 1867.[3] The high-school movement in Michigan began in 1859, when the graded school district was permitted to establish high-school or academic departments in union schools.[1]

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[1] Gifford, *op. cit.*, chap. III.

[2] Belting, *op. cit.*, chaps. XI, XII, and XIII.

[3] Boone, R. G. *History of Education in Indiana*, pp. 221 f. (New York, 1892.)

The provisions of the laws mentioned in these States represent the general character of the movement throughout the country at this period, except in the South. They finally gave legal sanction to the general principle underlying a public school system that had already been hoped for before 1800. The enactment of these laws did not, however, settle the question. There was still a considerable body of public opinion that was opposed to any upward extension of education beyond the elementary, even in those States where it could be argued that the secondary or high school was necessary to fill in the gap between the public elementary school and the state university. The nature of the opposition has already been indicated; it rested generally on a disinclination to pay taxes for the advanced education of other people's children, and on a suspicion that secondary education would lead to the undemocratic stratification of society.

The Kalamazoo decision. The matter was brought to an issue in the famous Kalamazoo Case (1874), in which, among a number of other contentions, it was argued that the common schools mentioned in the Constitution of the State did not include high schools, which were part of higher education and should be supported out of funds other than those for common schools. It was further urged that the high school in teaching foreign languages contravened the provision of the Constitution which required that "all instruction shall be conducted in the English language."

A friendly suit to settle the matter was brought in the name of Charles E. Stuart *et al. vs.* School District No. 1 of the Village of Kalamazoo. The decision of the lower court was in favor of the school district. On appeal to the Supreme Court of Michigan the lower court was sustained in every particular

[1] Davis, C. O., *op. cit.*, chaps. VIII and IX.

in a judgment which was written by Hon. Thomas Cooley, and which became the foundation stone for the erection of the high-school system in the country. The following quotations present the main points of the decision.

The bill in this case is filed to restrain the collection of such portion of the school taxes assessed against complaints for the year 1872, as have been voted for the support of the high school in that village, and for the payment of the salary of the superintendent. While, nominally, this is the end sought to be attained by the bill, the real purpose of the bill is wider and vastly more comprehensive than this brief statement would indicate, inasmuch as it seeks a judicial determination of the right of school authorities, in what are called union school districts of the State, to levy taxes upon the general public for the support of what in this State are known as high schools, and to make free by such taxation the instruction of children in other languages than the English.

. . . .

The more general question which the record presents we shall endeavor to state in our own language, but so as to make it stand out distinctly as a naked question of law, disconnected from all considerations of policy or expediency, in which light alone we are at liberty to consider it. It is, as we understand it, that there is no authority in this State to make the high schools free by taxation levied on the people at large. The argument is that while there may be no constitutional provision expressly prohibiting such taxation, the general course of legislation in the State and the general understanding of the people have been such as to require us to regard the instruction in the classics and in the living modern languages in these schools as in the nature not of practical and therefore necessary instruction for the benefit of the people at large, but rather as accomplishments for the few, to be sought after in the main by those best able to pay for them, and to be paid for by those who seek them, and not by general tax. And not only has this been the general state policy, but this higher learning of itself, when supplied by the State, is so far a matter of private concern to those who receive it that the courts ought to declare it incompetent to supply it wholly at the public expense. This is in substance, as we understand it, the position of the complainants in this suit.

> When this doctrine was broached to us, we must confess to no little surprise that the legislation and policy of our State were appealed to against the right of the State to furnish a liberal education to the youth of the State in schools brought within the reach of all classes. We supposed it had always been understood in this State that education, not merely in the rudiments, but in an enlarged sense, was regarded as an important practical advantage to be supplied at their option to rich and poor alike, and not as something pertaining merely to culture and accomplishment to be brought as such within the reach of those whose accumulated wealth enabled them to pay for it. As this, however, is now so seriously disputed, it may be necessary, perhaps, to take a brief survey of the legislation and general course, not only of the State, but of the antecedent territory, on the subject.

Here follows a review of the educational history of the State, from the Ordinance of 1787 to the new State Constitution of 1850, to show the intention to establish "a complete system of education." Of the Constitution of 1850 the court then says:

> The instrument submitted by the convention of the people and adopted by them provided for the establishment of free schools in every school district for at least three months in each year, and for the university. By the aid of these we have every reason to believe the people expected a complete collegiate education might be obtained.... The inference seems irresistible that the people expected the tendency towards the establishment of high schools in the primary-school districts would continue until every locality capable of supporting one was supplied. And this inference is strengthened by the fact that a considerable number of our union schools date their establishment from the year 1850 and the two or three years following.

The final opinion of the court as to the legality of the high school is stated as follows:

> If these facts do not demonstrate clearly and conclusively a general state policy, beginning in 1817 and continuing until after the adoption of the present constitution, in the direction of free schools in which education, and at their option the elements of classical education, might be brought within the reach of all the children of the State, then, as it seems to us, nothing can demonstrate it. We might

follow the subject further and show that the subsequent legislation has all concurred with this policy, but it would be a waste of time and labor. We content ourselves with the statement that neither in our state policy, in our constitution, or in our laws, do we find the primary-school districts restricted in the branches of knowledge which their officers may cause to be taught, or in the grade of instruction that may be given, if their voters consent in regular form to bear the expense and raise the taxes for the purpose.[1]

An Illinois decision. In Richards *vs.* Raymond (1878), it was held that the Illinois school law providing for the establishment of high schools under special charters "was constitutional, and the levy and collection of a tax to maintain the school was proper, although the course of study prescribed was different from that prescribed by the law." Finally in Powell *et al. vs.* The Board of Education of School District No. 4, St. Clair County, Illinois, 1880, the Supreme Court upheld the judgment of the lower court that the teaching of German in the public schools was not misappropriation of funds, that there was nothing "to show that the school was not an English school in which the common medium of instruction is the English language," and that "the mere fact that the German language is one of the branches of study prescribed does not change its character as an English school."[2]

There was thus settled the question raised by the Honorable George S. Boutwell, Secretary of the Massachusetts Board of Education, "How can the advantages of a high-school education be best secured?" He had answered his own question thus:

> And, first, the high school must be a public school. A *public* school I understand to be a school established by the public — supported chiefly or entirely by the public, controlled by the public,

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[1] Cubberley, E. P. *Readings in the History of Education*, pp. 587 ff. (Boston, Houghton Mifflin Company, 1920.)

[2] Both cases are quoted in Boone, R. G. *Education in the United States*, pp. 342 f. (New York, 1889.)

and accessible to the public upon terms of equality, without special charge for tuition.[1]

Growth of the high-school movement. The expansion of the high-school movement followed on the principles indicated after the Civil War. In the light of this development, the statement of Dr. William T. Harris that there were only forty high schools in 1860 has little basis in fact, except that the high school was not yet fully defined and many schools which only offered some higher branches of studies beyond those of the elementary schools adopted that title.[2] In Ohio alone there were reported 161 schools by that name. According to Inglis, 321 high schools had been established up to 1860, of which 267 were in Massachusetts, New York, and Ohio. While the numbers must remain uncertain, the important fact is that by the outbreak of the Civil War the position of the academy had been successfully contested, and the public high school was beginning to be regarded as the institution best adapted to the needs of the country. The principle was confirmed by the decision in the Kalamazoo Case, although as late as 1875–76 the Reverend C. Hammond urged the retention of the academy to supply the lack of culture which the rural schools could not provide and to train the best minds for college, the public school confining its work to the education of the whole mass of the popular mind to the highest possible average of attainment. His argument was that in the public schools the parents interfered and said what should and what should not be taught, while the academies stood *in loco parentis* and *in loco docentis*.[3]

The subsequent development of high schools followed on the gradual evolution of state systems of education, the rapidly increasing wealth of the country, and the growth in the number of cities and other organized communities. The stages in the provision of high schools were as follows:

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[1] Boutwell, G. S. *Educational Topics and Institutions*, pp. 152 f.; quoted in Brown, *op. cit.*, p. 319.

[2] *Proceedings of the N.E.A.*, 1901, p. 175.

[3] *Fortieth Annual Report of the* (*Massachusetts*) *Board of Education* (1875–76), p. 206.

1. Legislation permitting cities, towns, incorporated villages, and districts to tax themselves for the maintenance of high schools.
2. The grant of permission to small units to organize high-school districts and to tax themselves for their maintenance.
3. The recognition of county units for high-school purposes.
4. The grant of special assistance from state or other sources toward the support of high schools.

The extension of state influence and participation in the promotion of high-school facilities has been based on the desire to equalize burdens and opportunities, and consequently to promote free secondary-school privileges. The participation of the State in the promotion of an extended educational program has involved further the setting up and maintenance of well-defined standards for organization, equipment, and curricula, which will be discussed later.[1]

The growth of the high-school movement can best be told by a simple statistical table illustrating the development since 1890. It must be remembered that the figures for the last two decades include the enrollments for the extended high school of six years.

GROWTH OF SECONDARY EDUCATION FROM 1889-1890 TO 1927-1928

	1889–1890	1899–1900	1909–1910	1919–1920	1927–1928
Public high schools					
Number of schools reporting	2,526	6,005	10,213	14,326	18,116
Number of instructors	9,120	20,372	41,667	97,654	182,637
Number of pupils	202,963	519,251	915,061	1,857,155	4,217,313
Private high schools					
Number of schools reporting	1,632	1,978	1,781	2,093	2,448
Number of instructors	7,209	10,117	11,146	14,946	20,333
Number of pupils	94,931	110,797	117,400	184,153	269,249
All secondary schools					
Number of schools reporting	4,158	7,983	11,994	16,419	20,564
Number of instructors	16,329	30,489	52,813	112,600	202,970
Number of pupils	297,894	630,048	1,032,461	2,041,308	4,486,562

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[1] See Johnston, C. H. *The Modern High School*, chap. III. (New York, 1912.) Butterworth, J. E. *Problems in State High School Finance.* (Yonkers, New York, 1918.)

Development of the high-school curriculum

Equality of opportunity. The curriculum of the high school developed out of that of the academy. The purposes that governed its organization were twofold — preparation for college entrance, and preparation for practical life in commercial and mechanical pursuits. The principle that dominated was the provision of equality of opportunity, on the basis of which the introduction of a great multiplicity of subjects was justified. At the same time the rapid development of the sciences and the growing industrial needs had a considerable influence on the expansion of the curriculum. The principle of equality of opportunity was inherent in the political principles upon which the republic had been founded, and has never been so well expressed as by Emerson, in his essay on *Education*:

> . . . the poor man, whom the law does not allow to take an ear of corn when starving, nor a pair of shoes for his freezing feet, is allowed to put his hand into the pocket of the rich, and say, You shall educate me, not as you will, but as I will: not alone in the elements, but, by further provision, in the languages, in sciences, in the useful and in the elegant arts. The child shall be taken up by the State and taught, at the public cost, the rudiments of knowledge, and at last, the ripest results of art and science.[1]

It was not merely with the political implications of equality of opportunity, however, that Emerson was concerned. Starting with the notion of the perfectibility of man he defined its implications in terms of providing the fullest scope for the development of the individual by educational adaptations to his needs and abilities.

> A point of education, that I can never too much insist upon is this tenet, that every individual has a bias which he must obey, and that it is only as he feels and obeys this that he rightly develops and attains his legitimate power in the world. It is his magnetic needle, which points always in one direction to his proper path, with more or

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[1] Emerson, R. W. *Education, an Essay and Other Selections*, pp. 1 f. (Boston, Houghton Mifflin Company, 1909.)

> less variation from any other man's. He is never happy nor strong until he finds it, keeps it, learns to be at home with himself, learns to watch the delicate hints and insights that come to him, and to have the entire assurance of his own mind.[1]

Starting with the same respect for the genius of the individual, Emerson attacked any attempt to impose uniformity on his education.

> I suffer whenever I see that common sight of a parent or senior imposing his opinion and way of thinking and being on a young soul to which they are totally unfit. Cannot we let people be themselves, and enjoy life in their own way? You are trying to make that man another *you*. One's enough. Or we sacrifice the genius of the pupil, the unknown possibilities of his nature, to a neat and safe uniformity, as the Turks whitewash the costly mosaics of ancient art which the Greeks left on their temple walls. Rather let us have men whose manhood is only the continuation of their boyhood, natural characters still; such are able and fertile for heroic action; and not that sad spectacle with which we are too familiar, educated eyes in uneducated bodies.[2]

Breadth of studies, breadth of outlook, and a sense of social duty are the ends of education. It was Emerson, then, who furnished the philosophical bases for the adaptation of the curriculum to the individual capacities, and ultimately for the development of the elective system in colleges and secondary schools.

Combined courses. In New England, the earliest tendency was to establish an English High School as a separate institution to supplement the Classical School, but as early as 1831 Lowell combined both courses in the same school, "designed both to perfect the English education... begun in the primary and grammar schools, and to fit young men for college." The Worcester High School, opened in 1845, was not only a Classical and English High School, but was also coeducational; the resolution proposing the establishment of the school provided:

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[1] Emerson, R. W. *Letters and Social Aims*, p. 291.

[2] Emerson, R. W. *Education*, pp. 13 f. (Boston, 1909.)

> The course of study shall be arranged so that those who intend to obtain a classical education may have opportunity to pursue uninterruptedly the studies necessary for admission to college; and those who are desirous of being fitted for practical life, or of receiving a thorough English education, may have equal opportunity for that purpose.[1]

In 1852, Springfield organized the high school to enable students "to obtain such an education as will fit for any business or station in life." Generally the English course was three years in length, while the course of the classical department was one or two years longer. The usual age for admission to the high schools was twelve years, and was based on the successful passing of an examination in reading, writing, arithmetic, geography, and English grammar, with United States history occasionally added.[2] The curricula in the two departments, English and classical, were generally prescribed; the Middletown, Connecticut, High School, however, stated in its course of study that

> It is not expected that pupils will pursue all the studies of one department at the same time; neither will they be limited to the branches of one department; but they will be permitted to take any subject, when, by previous acquirements, they shall have been prepared to do so profitably.[3]

The Lowell *Report* of 1851 refers to the two types of organization, as follows:

> There are two modes in which a high school may be organized and conducted. One is, that of an exact and prescribed course of study, limited to a term of three, four, or five years (generally three) with annual admission and a corresponding course of study for each year.

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[1] Grizzell, *op. cit.*, p. 51.

[2] See Inglis, *op. cit.*, pp. 79 ff.; Grizzell, *op. cit.*, 280 ff.

[3] Grizzell, *op. cit.*, p. 308.

The other is *no* prescribed course of study; but in its place an authorized list of studies, left to the option of the pupil with entire freedom of admission or absence each term. The former is now adopted by every other important high school in Massachusetts including that of Lawrence. Lowell is left almost in the exclusive advocacy of the latter.[1]

Typical curriculum developments. The development of the secondary-school curriculum in New England, up to 1865, is illustrated in the accompanying tabular statement. The subjects and the appropriate textbooks seemed to constitute the courses of study in each school.

TABULAR STATEMENT OF HIGH-SCHOOL CURRICULA

BOSTON LATIN SCHOOL [2] 1820	BOSTON ENGLISH HIGH SCHOOL [2] 1821	MASSACHUSETTS LAW [2] 1827
Latin	Reading	Orthography
Greek	Exercises in Criticism	Reading
Geography	Geography	Writing
Rhetoric	Composition	English Grammar
Arithmetic	Arithmetic	Geography
Algebra	Geometry	Arithmetic
Declamation	Algebra	History of United States
	Declamation	Bookkeeping (Single Entry)
	[Grammar]	
	History, U.S., Ancient and Modern	Geometry
	Plane Trigonometry	Surveying
	Mensuration	Algebra
	Surveying	Latin
	Navigation	Greek
	Natural Philosophy	History
	Astronomy	Rhetoric
	Moral Philosophy	Logic
	Political Philosophy	
	Logic	
	Chronology	
	Subjects added 1823	
	Bookkeeping	
	Evidences of Christianity	
	Natural Theology	

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[1] Quoted in Inglis, *op. cit.*, pp. 96 f.

[2] Grizzell, *op. cit.*, pp. 290 ff.

HARTFORD, CONN.[1]
1848

Reading, Orthography and Definition
Arithmetic
English Grammar and Analysis
Geography
History, U.S., England, France, Ancient
Algebra
Geometry
Trigonometry, Plane
Surveying
Mensuration
Physiology
Natural Philosophy
Astronomy
Bookkeeping
Rhetoric and Composition
Logic
Intellectual Philosophy
Moral Philosophy
Political Economy
Natural Theology
Evidences of Christianity
Latin
Greek
Vocal Music
English Classics
History of Literature
French or other Modern Languages as extras on payment of a fee

PROVIDENCE, R.I.[1]
1855–68

English Prosody
Composition, Rhetoric
English Grammar
Literature, History of English Literature, History of the English Language
Algebra
Geometry
Trigonometry
Astronomy
Natural Philosophy
Chemistry
Physiology
Botany
Geology
Physical Geography
Declamation
Intellectual Philosophy
Moral Science
Bookkeeping
History, General, Greece, Rome, France, and England
Constitution of the U.S. and Rhode Island
Latin
Greek
French
Classical Manual
Vocal Music

WORCESTER[1]
1862

Orthography
Penmanship
Arithmetic
Geography
Etymology
Rhetoric
Grammar
Analysis
Literature, English and American
Algebra
Geometry
Trigonometry
Study of Roots
Astronomy
Natural Philosophy
Chemistry
Physiology
Botany
Zoölogy
Physical Geography
Declamation
Intellectual Philosophy
Moral Philosophy
Political Class Book
Bookkeeping
History, U.S., Ancient, Modern

MASSACHUSETTS LAW[2]
1859

Orthography
Reading
Writing
English Grammar
Arithmetic
History, United States, General
Algebra
Chemistry
Botany
Civil Polity of Massachusetts and the United States
Latin
Greek

LOCKPORT, N.Y., UNION[3]
1850

Arithmetic
Spelling
Reading
Geography
Grammar
Writing
Declamation
Composition
Surveying
Mensuration
Astronomy
Civil Engineering
Natural Philosophy
Chemistry
Anatomy and Physiology

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[1] Grizzell, *op. cit.*, pp. 290 ff.

[2] Inglis, *op. cit.*, p. 33.

[3] Gifford, *op. cit.*, pp. 80 f.

Vocal Music	French	Rhetoric	Botany
Drawing	Astronomy	History, General and United States	Philosophy
Physiology and Hygiene	Geology	Drawing	Intellectual Philosophy
Bookkeeping	Rhetoric	Algebra	Bookkeeping
Surveying	Logic	Geometry	French
Geometry	Intellectual and Moral Science	Trigonometry	Greek
Natural Philosophy	Political Economy		Latin
			German

Multiplicity of subjects taught. Inglis lists seventy-three subjects and their branches found in the curricula of schools in sixty-three towns of Massachusetts before 1861, distributed as follows: English 11, mathematics 8, languages 6, geography 4, history 9, political science 5, science 17, moral science 5, miscellaneous 8. This array offered large scope for selection in the curricula of the high schools that began to be established in the country. Thus, California required, in addition to the subjects taught in the grammar schools, the inclusion of the following subjects in the high schools that were planned under the Act of 1851: "bookkeeping, surveying, drawing, music, political economy, Greek and Latin, equal to that what [*sic*] is required for admission into college, Spanish, and French."[1] Except for the requirements for admission to college, the curricula of the Michigan high schools were at first unorganized, subjects being added or omitted according to the demands of the pupils. Out of the unorganized subjects there gradually emerged the classical and English courses. In 1861, Superintendent Gregory indicated in his *Report* what he regarded as a suggestive program of studies for union schools. The subjects included in this program, in addition to those of the elementary schools, were algebra, geometry, natural philosophy, rhetoric, natural history, botany, geology, chemistry, moral and mental philosophy, and ancient and modern languages.[2]

The Reverend J. Fraser (later Bishop of Manchester) made the following comparison between English and American secondary education, in 1864:

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[1] Quoted in Brown, *op. cit.*, pp. 354 ff.

[2] Davis, *op. cit.*, pp. 206 f.

> I do not know that the aggregate results of the system can be better summed up than by saying that there exists in America a general diffusion of intelligence rather than any high culture or profound erudition. If I were to compare them with the results of the best education at home, I should say that an American pupil probably leaves school with more special knowledge, but with less general development. He would have more acquaintance (not very profound, though) with certain branches of physical science, certainly as much acquaintance with mathematics, but not more acquaintance with modern languages and much less acquaintance with the ancient languages and classical literature.[1]

The reasons that Fraser presents are too wide and multifarious a program, lack of continuity in the study of subjects, and in general failure to observe the principle *ne multa sed multum*. The teachers on the whole were more lively and energetic and the pupils less drowsy in England, but both suffered in the schools that he visited in New York, Philadelphia, and Chicago from the examinations which were taken too seriously, while the questions and answers were too mechanical:

> running along the groove of the textbooks, and hardly diverging even from the phraseology. They seemed, therefore, to touch the memory chiefly, the faculty which is rather too exclusively, or at least too prominently, cultivated in American schools.... As far as my judgment goes, all these examinations need to be freer, dealing more with real knowledge and less with conventional phraseology, and more completely emancipated from the fear of textbooks and the limitations of routine. It is a miserable thing that students who are supposed to be acquainted with a subject should be able to look at it only from one side, and express their knowledge in no more than one prescribed memorized form of words.[2]

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[1] Schools Inquiry Commission, I, p. 172. *Report by Rev. J. Fraser on the Common School System of the United States and of the Provinces of Upper and Lower Canada.*

[2] *Ibid.*, p. 83.

Reverend C. Hammond, writing of the New England Academies and Classical Schools about 1875, made somewhat the same criticism of the public high schools, that they have tried to give both classical and scientific instruction

> in obedience to a popular demand for a class of studies deemed specially practical; and the consequence has been that in many places the public schools have been overwhelmed with an excess of branches of study, while the branches essential as the foundation of real mental culture have been discarded. This course has diminished the real value of the public schools, which have thus been made subservient to the wants of a few, while the essential interests of many are disregarded. The attempt has been made to accomplish too *high* things in what are called high schools. Not only is it proposed to fit boys for "ye Universitie," without regard to the question whether they wish to be fitted or not, but to teach the outlines of nearly all the branches for each one of which a professorship is deemed a necessity in a decent college. But this is an impossibility even in the best high schools of our largest cities and towns.[1]

Development of parallel courses. An attempt to correct the weaknesses and defects of a large number of offerings in which two courses only, the classical and English, stood out clearly, began to be made in the sixties. This movement was facilitated by the development of alternative courses in the colleges, whereby to the traditional B.A. course there were added the Ph.B., B.S., and B.L. courses. This involved the recognition of new subjects for purposes of college entrance, and encouraged the high schools to organize their courses accordingly. The growth in number and variety of these courses is given in the table on page 458.[2]

Where parallel courses were offered, the students were usually limited to those subjects that made up the course. In other words, they had the right only to elect the course, but not the

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[1] *Fortieth Annual Report of the* (*Massachusetts*) *Board of Education* (1875–76), p. 201.

[2] Stout, J. E. *The Development of High School Curricula in the North Central States from 1860 to 1918.* (University of Chicago Press, 1921.)

Development of Courses

1860–65	1880–85	1896–1900	
Classical	Classical	Ancient Classical	German
English and Classical	Commercial	Business	German-English
English	Commercial-English	College Preparatory	German-Scientific
General	English	Commercial	Literary
Latin-English	General	Complete Commercial	Language
Regular	Latin-Scientific	Shorter Commercial	Latin
Normal	Modern Classical	Classical	Latin-Science
	Preparatory	English	Latin-Scientific
	Preparatory-English	English-Science	Latin-English
	Scientific	English-Scientific	Latin-German
	Scientific-English	English-Latin	Modern-Classical
	Technological	English-Commercial	Manual Training for Boys
		English-German	Manual Training for Girls
		Engineering	Natural Science
		French-English	Preparatory
		General	Philosophical
		General Literary	Science
		General Science	Scientific

subjects. The election of subjects began to be permitted tentatively, as, for example, at East Saginaw, Michigan, where partial election of studies was permitted in 1876, a practice, it was stated, which "popularizes without destroying efficiency."[1] The provision of flexibility through the provision of electives did not, however, become a serious issue until the nineties. As the above table indicates, an attempt was made to meet the issue by the multiplication of parallel courses. Before 1890 another tendency appeared through the multiplication of short intensive treatment of subjects, especially in the sciences, within the alternative courses and lasting ten or fourteen weeks.

Commercial and manual-arts courses. The emergence of the commercial course began in the seventies, although a few subjects for "mercantile" pursuits had appeared, as early as 1823, in the Boston English High School. The development of

[1] Davis, *op. cit.*, p. 209.

commercial education in the public high schools was very gradual; the private commercial schools, which offered more intensive courses and attracted their students by a great variety of publicity methods, held the field. As late as 1893, they reported to the United States Bureau of Education an enrollment of 115,748 students, figures which were probably incomplete, as compared with 15,220 students reported in the same year as pursuing commercial courses in the high schools. The fuller development of commercial education in the high schools followed the plea for such education presented by Professor Edmund J. James, in an address before the American Bankers' Association, in 1892. In 1898, the Central High School of Philadelphia established a separate commercial school with an entirely distinct curriculum, and this was soon followed by the establishment of similar schools in New York, Pittsburgh, Chicago, Brooklyn, Washington, and elsewhere.[1]

Another development in the expansion of the scope of the high school took place in the gradual introduction of manual training, following the Centennial Exhibition in Philadelphia in 1876, and in the establishment of separate courses and schools. Some of the schools incorporating the new work were private, and some public. Such provision was made in St. Louis in 1879, in connection with Washington University; in Chicago, Baltimore, and Toledo in 1884; in Philadelphia in 1885; in Cleveland, Cincinnati, and Omaha in 1886; in Appleton, Wisconsin, in 1887; and in Indianapolis in 1890. In 1895, all cities with a population of 30,000 or more were required, by a law passed in Massachusetts, to provide manual training in the high schools. The first successful agricultural high school was established in 1888 in connection with the University of Minnesota, but the spread of this type of specialized school for a time was slow, and by 1898 the number had only increased to ten. For girls, cooking and sewing were introduced in the

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[1] Monroe, P. *Cyclopedia of Education*, s.v. *Commercial Education.*

Girls' High and Normal School in Philadelphia, in 1880; and in Toledo provision was made the same year for training in sewing, dressmaking, millinery, and cooking.

The curriculum and equality of opportunity. These tendencies to expansion were not entirely arbitrary. They represented a feeling of unrest, caused by a desire to discover the most suitable means for efficiently realizing the American ideal of giving every boy and girl their chance. An attempt was made, somewhat empirically, to enable every pupil to make the most of himself and to render to society the highest return of which he was capable. Hence we witness in America the opening of as many routes as possible and the effort to blend intellectual and practical training in the same school, long before the need of such a principle occurred to European educators. Educational organization partook somewhat of the character of the industrial movement in the United States; it was venturesome and daring; it was innovating and forward-looking; but it was at the same time lacking in any other philosophical motive than was furnished by the desire to provide equality of opportunity and to meet the variety of needs and capacities among the pupils. While the European countries nearly wrecked their systems of secondary education by a too rigid adhesion to a traditional faith in a limited number of subjects, which were presumed to contain in themselves all the educational values, the high schools of the United States were confronted with the danger of failure because of the absence of any clear-cut concept of liberal education, and because of a certain *laissez-faire* attitude which satisfied the intense popular faith in education by providing every boy and girl with the opportunity to attend a high school. Despite the repeated contention that college domination over the high school retarded its development, the actual facts, as indicated in the growth of subjects and courses offered, point to the contrary conclusion. It might even be argued that until the close of the nineteenth century the college entrance requirements alone saved the high schools from anarchy and chaos, in so far as they offered recognizable standards of attainment. That these requirements were narrow in scope and that they were based, like their European counterparts, on a somewhat sweeping acceptance of the doctrine of formal discipline, does not affect the facts.

Development by 1890, and forces. By 1890 the unrest in secondary education had reached its height in the United States, as in Europe, but the somewhat fumbling and empirical expansion of the curriculum of the high school had furnished a better basis for arguments for reorganization. While in Europe the problem of reorganization at this time turned on the question of recognizing the equivalence of modern languages and sciences with the traditional subjects, and although the impulse came, as it necessarily must have done, from the changing conditions in industry and commerce in the United States, the demand in America took a somewhat different form.

The year 1890 marked the date of the conquest of the American frontier, as it also marked the beginnings of the most remarkable progress in industrial and commercial expansion. The right to equality of opportunity was now assured as an ideal, and guaranteed by legal decisions. What was now demanded was the right of the high school to adapt its work to the variety of individual capacities found within it, the principle already enunciated by Emerson but not yet scientifically established by the psychologists, and the right to adapt the courses to the changing social needs. While in Europe the universities had to be convinced of the equivalence of a narrow range of subjects, or, in other words, that the concept of liberal education could not be confined to a few traditional subjects, the task in the United States was to convince the colleges that what was good for a high-school education was also good for admission to college. Put in another way, it was that the concept of liberal education could not be restricted merely to so-called intellectual training, but must be interpreted broadly in the light of contemporary social organization and must consequently include practical (not necessarily vocational) training as well.

For the interpretation of the task of the high school there was needed, in the last decade of the nineteenth century, the enunciation of certain guiding principles which had hitherto been lacking entirely, or, if consciously comprehended, were vaguely inherent in the doctrine of equality of opportunity and adaptation to individual capacities. In France and Germany decisions on a somewhat similar question were reached by the governments on the basis of commissions which were appointed by them, but whose recommendations were not always carried out to the letter; in England the progress of secondary education was promoted by special commissions and by the deliberations of professional organizations, the government remaining aloof and refraining from participation virtually until after 1902. In the United States, on the contrary, concerted action was brought about not by governmental action, whether federal or state (except in New York), but by the deliberations of local groups of educators and of the National Education Association, each dominated by strong personalities.

The high school had developed in the second half of the nineteenth century on the momentum of public opinion, not entirely certain of its peculiar place and function in the system of education except that it was to prepare for college and for practical life. The last decade of the century was devoted to a consideration of the issues involved in the problem of secondary education, and in the elaboration of principles to guide the further development of the high school as an institution to prepare the individual according to his capacities for a society entering on a new stage of its history.

The development of inspection and standards

College entrance requirements. Since preparation for college was one of the clearly recognized aims of the high school, the requirements for entrance furnished a clear and definite guide for the curriculum. This form of standardization involved the high school in a number of difficulties. The high school was less bound by tradition and was more liberal in the admission of new subjects to the curriculum than was the college. The college entrance requirements accordingly tended to restrict the progress of that part of the high school, at any rate, that prepared for them. The requirements again were defined in view of the work that was to be done in the college; the standard course in the college was, until the middle of the century, that leading to the B.A. degree. Alternative courses preparing for the Ph.B., B.L., and B.S. degrees began to be introduced in 1851, and these made possible some elasticity in the entrance requirements. Reference has already been made to the addition to the traditional requirements of Latin, Greek, and arithmetic, of geography (1807); English grammar (1819); algebra (1820); geometry (1844); and ancient history (1847). In 1852, the regents of the University of Michigan stated that

> Candidates for admission to the Freshman Class must not be less than fourteen years of age, and must sustain an examination in English grammar, geography, arithmetic, algebra through simple equations, first part of Krebs' Guide to the Writing of Latin, Latin Reader, Cornelius Nepos (Arnold's), Cicero's Orations against Catiline, Vergil's Æneid, Greek Reader to the poetry, the four Gospels, Latin and Greek grammar, Keightley's Grecian and Roman History.[1]

Even though alternative courses began to be provided in several colleges in the fifties, new subjects did not begin to appear in the list of entrance requirements until the following decade.

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[1] From Public Secondary Education, by C. O. Davis, p. 144. Copyright by Rand, McNally and Co.

Some of the subjects and dates and places of their appearance are given in the following list:

Modern history (United States), Michigan, 1869
Physical geography, Michigan and Harvard, 1870
English composition, Princeton, 1870
English literature, Harvard and Princeton, 1870
Physical science, Harvard, 1872
Rhetoric, Harvard, 1874
Modern language, Harvard, 1875
Physiology, Cornell, 1877
Natural philosophy and botany, Michigan, 1890

The early period of absolute prescription was followed by a group system, determined by the alternative degree courses. The college entrance requirements, whether rigid or by groups, not only defined the scope of the courses to be taken by those students in the high schools who intended to proceed to college, but were also the subjects of the examinations given for entrance. Their effect was not merely to limit the scope of the high-school course, but also to impose methods of instruction which were regarded as unsatisfactory. Stanford University formed a notable exception to even the group system, as from its opening in 1891, it required for admission only English and any ten (later thirteen) subjects selected from a list of twenty-five (and later more). This flexible method of stating entrance requirements, however, did not begin to spread generally until ten years later, after the publication (1899) of the Report of the Committee on College Entrance Requirements.

Beginning of the accrediting system. In 1870, President Frieze of the University of Michigan recommended the organization of a Commission of Examiners from the Academic Faculty which "should visit annually such schools as may desire it and give certificates to those pupils who may be successful in their examinations, entitling them to admission, without further examinations, to the University." This recommendation was put into practice in the following year, when President Angell succeeded President Frieze. High schools were visited on request of a committee of the University, which examined into the organization, teaching staff, equipment, the general character of the work, and the standards obtained by their graduates. If the committee were satisfied, graduates would be admitted to the University without further examination, on the recommendation of the high-school principal or the superintendent of schools. This system of affiliation of the high school with the University or, as it came to be called more generally, of accrediting, was immediately successful. It brought the schools and colleges closer together, it relieved the schools of the task of preparing for a single examination, and it furnished a better record of a student's ability. The plan was extended, in 1876, to smaller high schools that were in a position to prepare students for any one rather than for all of the undergraduate courses of the university. In 1885, the privilege of certification was extended to schools outside of Michigan.[1]

Indiana settled the conflicts that had arisen between the high schools and the University in a somewhat similar manner, in 1873, when it was decided to admit students to the university on certificates from certain high schools that were "designated and commissioned" by the State Board of Education. Commissions could be withdrawn at any time, and the freshmen were admitted during their first year in the University on probation.[2] The system thus initiated in Michigan and Indiana was soon adopted in other States in the Middle West and West (Wisconsin, 1879; Minnesota, 1881; and California, 1884), and spread with great rapidity. By 1897 some form of the accrediting system was employed by 42 state colleges, and by about 150 other institutions.

Value of the accrediting system. The accrediting system removed some of the barriers between the high school and the college, and in place of the examinations by which individual pupils were tested substituted a system of inspection, conducted either by the universities or by the state board of education, or by both in coöperation. It tended to set up general standards covering all aspects of high-school organization, rather than the limited scope that could be measured by an examination system. With the gradual development of an elective system in the colleges, the high schools also benefited by being allowed to adapt their work more closely to the needs of their pupils. At the same time the accrediting system, although broader than the examination system and affording opportunities for consultation and conference between the parties concerned, did not relieve the high schools of the task of preparing those students who intended to proceed to college in certain prescribed subjects. New subjects began slowly to be added as the elective system developed in the colleges, but the high schools were relieved of the domination by the colleges only in a narrow sense. The practice adopted by Stanford University, in 1891, did not and has not yet become by any means general.[1]

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[1] See Davis, *op. cit.*, pp. 213 ff.

[2] Boone, R. G. *A History of Education in Indiana*, pp. 304 ff. (New York, 1892.)

The accrediting system was successful in standardizing the work of the high schools only within the limits of each State in which it operated. The subjects required for admission varied from State to State; they might vary even in different institutions of higher education in the same State.

Beginning of standardizing associations. The first attempt to attack the difficulties arising out of the diversity of college entrance requirements was made in 1879, at a conference of New England Colleges held at Trinity College, Hartford. An investigation of examination papers of several colleges revealed the desirability of concerted action, which was directed first to the subject of English. It was then decided to accept the standards set in this subject by Harvard. At subsequent conferences, held in 1881 and 1882, a similar principle, in order to secure a degree of uniformity, was extended to classics and mathematics. Out of these conferences the New England Association of Colleges and Preparatory Schools was formed, in 1885, for "the advancement of the cause of liberal education by the promotion of interests common to colleges and preparatory schools."

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[1] See Broome, E. C. *A Historical and Critical Discussion of College Entrance Requirements*, chap. IV. (New York, 1902.)

The Association has devoted itself to a discussion of uniform entrance requirements and to the improvement of secondary education in general, a tendency which was indicated, in 1914, by a change of its title to the New England Association of Colleges and Secondary Schools. In 1886, there grew out of this Association the Commission of Colleges in New England on Entrance Examinations, "to devise means for securing greater uniformity in college admission examinations." In 1902 there was organized, in the same region, the New England College Entrance Certificate Board, a body charged with the task of drawing up a list of approved secondary schools whose graduates might be admitted to colleges on certificates in lieu of examinations. The practice of this Board differs from that of accrediting agencies in that it does not inspect schools, but approves them on the basis of the records of their graduates in colleges. Thus:

> No school shall be approved unless it has shown by the record of its students already admitted to college its ability to give thorough preparation for college; or unless it can satisfactorily meet such tests as the Board may establish to determine its efficiency.

The establishment of the New England Association was followed, in 1892, by the organization of the Association of Colleges and Preparatory Schools of the Middle States and Maryland, an outgrowth of the College Association of Pennsylvania, which met first in 1887 to promote closer relations between the colleges and to secure legislation to that end. The purpose of the Association of Colleges and Secondary Schools of the Middle States and Maryland was stated as follows:

> The object of the Association shall be to consider the qualifications for candidates for admission to college and the methods of admission; the character of the preparatory schools; the course of study to be pursued in the colleges and schools, including their order, number, etc.; the relative number of required and elective studies in the various courses; the kind and character of degrees conferred; methods of organization, government, etc.; the relations of the colleges to the state and to the general educational system of the state and country; and any and all other questions affecting the welfare of the colleges and schools, or calculated to secure their proper advancement.

The Association early (1894) turned its attention to the consideration of the problem of uniform entrance examinations, and in 1900 established the College Entrance Examination Board of the Middle States and Maryland.

The College Entrance Examination Board. The idea of a common examining board had already been suggested many years earlier by President Eliot,[1] and was brought to a practical issue before the Association by President (then Professor) Nicholas Murray Butler, who had, as early as 1893, proposed the organization of such a board to the Faculty of Columbia College, and who, in 1899, secured the adoption by the Association of the following resolutions:

> *Resolved*, That this Association urges the establishment of a joint college admission examination board, composed of representatives of colleges and of secondary schools in the Middle States and Maryland, which shall: (1) Endeavor to bring about as rapidly as possible an agreement upon a uniform statement as to each subject required by two or more colleges in turn. (2) Hold or cause to be held at convenient points, in June of each year, a series of college admission examinations, with uniform tests in each subject, and issue certificates based on the results of such examinations.

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[1] *Educational Review*, XIX, pp. 71 ff.

Resolved, That the several colleges in the Middle States and Maryland be requested by this Association to accept the certificates issued by such joint college admission examination board, so far as they go, in lieu of their own separate admission examinations.

The College Entrance Examination Board soon became an independent organization, and extended its scope not only throughout the United States, but into other parts of the world where candidates for its certificates present themselves. The first examination was held in 1901, at 67 points in the United States and at 2 in Europe, and 973 candidates were examined. In 1929, 22,724 candidates were examined at 357 centers, and came from 1937 secondary schools (1124 public and 813 private).

Regional standardizing associations. The need of an organization to promote relations between colleges and secondary schools was met, in 1894, by the formation of the North Central Association, with representatives from colleges, secondary schools, and normal schools. The first meeting was held at Northwestern University in 1895, "to establish closer relations between the colleges and secondary schools of the North Central States." The Association early took up the problem of college entrance requirements, and in 1900 recommended that no college with a membership in the Association admit students who had not completed the equivalent of a four-year secondary-school course; that admission requirements be fixed at sixteen units (the unit being "a year's work in a subject for four periods a week"); and that the requirements include two years of English, two of mathematics, one of science, and one of history. Through its Commission on Accredited Schools, created in 1901, the Association has defined the standards of secondary education. The first list of accredited schools was published in 1904, on the basis of information supplied by the schools and of inspection.

In the South, the same task of standardization and promotion of mutual coöperation and assistance has been performed by the Association of Colleges and Preparatory (changed in 1912 to Secondary) Schools of the Southern States, which was established in 1895 "to establish (according to the present constitution) helpful relations between secondary schools and the institutions of higher education within the territory of the association, and to consider all subjects that tend to the promotion of interests common to colleges and secondary schools." The progress of this Association was somewhat slower than of others, because of the slow development of secondary education in the Southern States. Like the other Associations, the Southern organization dealt with entrance requirements and the organization of secondary studies. In 1911 it established a Committee on Accredited Schools.

The Northwest Association of Secondary and Higher Schools was established in 1918, with objects similar to the older associations. The members are drawn chiefly from the States of Washington, Oregon, Idaho, and Montana, with some representatives from institutions in Utah and California.

In general, these Associations have contributed extensively to the definition of the scope of work and organization of secondary schools, and their relations with colleges and to the setting up of standards, both in secondary and higher institutions, in such matters as graduation, length of year, length of class periods, size of staff, pupil load, preparation and salaries of teachers, teaching load, buildings and equipment (including libraries and laboratories), and general efficiency. While there has been some coöperation in limited fields, such as reciprocal recognition of entrance requirements in some subjects or of schools on accredited lists, the work of these Associations was in the main regional. There was no agreement among them, particularly on such an important matter as the curricula of secondary schools; the Eastern and Southern associations tended to be conservative, while the North Central Association responded more readily to the changing social and economic conditions and to the public demands.

There still remained the problem of promoting standards for secondary education that would receive nation-wide recognition. In the absence of a central governmental authority the task was undertaken, under the leadership of recognized leaders in education, through the only organization that was nation-wide in scope — the National Education Association.[1]

The unrest in secondary education. The last decade of the nineteenth century was marked, in the United States as elsewhere, by unrest in secondary education. It was, as it were, a period of taking stock of what had been achieved, and of preparation for the next step. Knowledge had expanded rapidly in the nineteenth century, and the attempt of the high schools to keep pace with it had led to an almost chaotic massing up of subjects and courses. By 1890 a long list of short ten-, twelve-, and fourteen-week courses had appeared, without any clear organization or dovetailing, except such as were enforced by college entrance examinations. A system of election of studies had also grown up, with serious effects on the organization of orderly studies.

The year 1890 also marked the conquest of the frontier, and the beginnings of a new wave of industrial development which in turn led to a rush to urban life and attracted vast numbers of immigrants to the land of unlimited opportunities. On the industrial side the period was characterized by new exploitation of natural resources by new methods, by a large demand for labor and trained intelligence, by a rapid increase of wealth and well-being, and by a new era of inventions to economize and supplement human labor. The change from a predominantly agricultural to an industrial basis was accompanied by social changes, and the interests and activities of farm life gave place to the new interests and activities of an organized industrial society. These changes, and the growing wealth of the country, led to a demand for more education to meet the needs of industry and commerce, to which the traditional faith in educational opportunity and the common desire to give every boy and girl their chance readily responded. Every individual was entitled to an opportunity through education to make the most of his capacities. The high school was now definitely accepted as the natural extension of the elementary school, and as the institution through which the individual was to find his opportunity.

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[1] For the earlier Associations in the East see Broome, E. C., *op. cit.*, chap. v; for all the Associations see Cook, W. A., "A Comparative Study of Standardizing Agencies"; in the *North Central Association Quarterly*, December, 1929, pp. 377 ff.

There was, however, no clear notion of the educational function of the high school, and definitely recognized standards of secondary education did not yet exist. Standardizing agencies had, it is true, begun to be established, but they affected mainly the relations between the high school and the college, and did not define the general function of the high school in the community. No doubt the standards set up for preparation for college had a salutary effect on the non-preparatory courses, but again there was the disadvantage that these standards varied in different parts of the country.

Appointment of the Committee of Ten. It was to correct these difficulties that the National Education Association, acting on the recommendation of the National Council of Education, which had already taken up the subject a year earlier, appointed a Committee of Ten on Secondary School Studies, in July, 1892. The Committee, under the chairmanship of President Charles W. Eliot, organized conferences on the following subjects: Latin; Greek; English; Other Modern Languages; Mathematics; Physics, Astronomy, and Chemistry; Natural History (Biology, including Botany, Zoölogy, and Physiology); History, Civil Government, and Political Economy; and Geography (Physical Geography, Geology, and Meteorology).

Ten members were appointed to each Conference "having regard in the selection to the scholarship and experience of the gentlemen named, to the fair division of the members between colleges on the one hand and schools on the other, and to the proper geographical distribution of the total membership." A list of questions was submitted to each Conference dealing with the age at which the subject of its consideration should be begun; the number of hours per week and the number of years to be assigned to it; the topics or parts of the subject to be covered at various stages; the form and the extent of the subject for college entrance requirements; the desirability of differentiation between pupils going to a college or a scientific school and those not going; methods of teaching; and methods of examination for admission to college.

The Committee's Report. The Committee of Ten made its *Report* in 1893.[1] The Conferences recommended unanimously that subjects should be begun earlier, and that in most cases a foundation be laid in the elementary schools. No distinction should be made based on whether the pupils were planning to enter college or not; all should be taught in the same way, irrespective of their future destination. This recommendation, it was thought, would make for greater simplification of programs. Attention was drawn to the need of better-trained teachers with a higher grade of scholarship. The Committee of Ten undertook the task of constructing a flexible and comprehensive schedule of studies, based on the recommendations of the Conferences, and accepted the list of subjects discussed by the Conferences as proper for secondary schools:

> They are: 1, languages — Latin, Greek, English, German, and French (and locally Spanish); 2, mathematics — algebra, geometry, and trigonometry; 3, general history, and the intensive study of special epochs; 4, natural history — including descriptive astron-

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[1] United States Bureau of Education. *Report of the Committee on Secondary School Studies.* (Washington, 1893.)

omy, meteorology, botany, zoölogy, physiology, geology, and ethnology, most of which subjects may conveniently be grouped under the title of physical geography; and 5, physics and chemistry.

On the basis of these subjects the Committee drew up some model programs, assigning different amounts of time to each subject and providing opportunities for selection between courses.

> Selection for the individual is necessary to thoroughness, and to the imparting of power as distinguished from information; for any large subject whatever, to yield its training value, must be pursued for several years and be studied from three to five times a week, and if each subject studied is thus to claim a considerable fraction of the pupil's school time, then clearly the individual pupil can give attention to only a moderate number of subjects.

The time basis was adopted, although admitted to be in some respects inadequate, "for it takes no account of the scope and intensity of the instruction given during the periods; but, so far as it goes, it is trustworthy and instructive." The recommendation at least represented an attempt to provide that all subjects "should be taught consecutively enough and intensively enough to make every subject yield that training that it is best fitted to yield." Another argument for the use of the time-allotment measure was that it made it possible to build up parallel courses in which "all the subjects between which choice is allowed should be approximately equivalent to each other in seriousness, dignity, and efficacy." In the opinion of the Committee, such subjects as algebra, geometry, natural science, and foreign languages should be begun earlier, or "as an alternative, the secondary-school period should be made to begin two years earlier than at present, leaving six years instead of eight for the elementary-school period."

On the vexed question of the relation of the secondary schools to the colleges the Committee made an unequivocal statement:

> The secondary schools of the United States, taken as a whole, do not exist for the purpose of preparing boys and girls for colleges. Only an insignificant percentage of the graduates of these schools go to colleges or scientific schools. Their main function is to prepare for the duties of life that small proportion of all the children in the country — a proportion small in number, but very important to the welfare of the nation — who show themselves able to profit by an education prolonged to the eighteenth year, and whose parents are able to support them while they remain at school.

With reference to entrance requirements, they said:

> A college might say — We will accept for admission any groups of studies taken from the secondary school program, provided that the sum of the studies in each of the four years amounts to sixteen, or eighteen, or twenty periods a week — as may be thought best — and provided, further, that in each year at least four of the subjects presented shall have been pursued at least three periods a week and that at least three of the subjects shall have been pursued three years or more.

Importance of the Committee's work. These recommendations marked the beginning of a new era in the organization of high-school studies. They set up clearly and definitely a quantitative measure of secondary education, based on the equivalence of studies. The implication was that it would make no difference what a pupil had chosen from the program — "he would have had four years of strong and effective mental training." The Committee, it must be remembered, had through its nine Conferences considered only a limited range of subjects. It remained for the next generation to show the full import of this implication when any subject whatever came to be regarded as equivalent to any other subject if pursued for the same length of time. On this basis the whole problem of educational value ceased to exist, particularly when fortified later by such questions as mortality and comparative costs of subject-matter, and by the contributions of psychologists on formal discipline and individual differences.

On the fundamental problem of education — the preparation of an adequate body of teachers — the Committee contented itself with pointing out the existing means for the further instruction of teachers in service, and with expressing the pious wish that colleges should devote a greater interest to secondary and elementary education, since

> Every reader of this report and of the reports of the nine Conferences will be satisfied that to carry out the improvements proposed more highly trained teachers will be needed than are now ordinarily to be found for the service of the elementary and secondary schools.

The Committee on College Entrance Requirements. There still remained the problem of how the colleges should adjust their requirements to the conditions in the secondary schools. For the consideration of this problem there was appointed, in 1895, the Committee on College Entrance Requirements

> to study the question of college entrance requirements, for the purpose of harmonizing the relations between the secondary schools and the colleges, to the end that the former may do their legitimate work, as the schools of the people, and at the same time furnish an adequate preparation to their pupils for more advanced study in the academic colleges and technical schools of the country.

Widespread public interest was aroused by the inquiry, and the Committee secured the coöperation of a number of specialist organizations — the American Philological Society, the American Historical Association, the Modern Language Association, and the American Mathematical Association. The final *Report*, issued in 1899, represented the results of the deliberations of one hundred and fifty experts in secondary and higher education, which were summarized in fourteen resolutions.[1]

> I. *Resolved*, That the principle of election be recognized in secondary schools.

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[1] *Report of the Committee on College Entrance Requirements*, in National Educational Association, *Proceedings and Addresses*, pp. 632 ff. (Chicago, 1899.)

II. *Resolved*, That the requirements for admission to technical schools should be as extended and thoro as the requirements for admission to college.

III. *Resolved*, That the teachers in the secondary schools should be college graduates, or have the equivalent of a college education.

IV. *Resolved*, That we favor a unified six-year high-school course of study, beginning with the seventh grade.

V. *Resolved*, That in the interpretation of the recommendations of this committee concerning the subjects to be included in the secondary-school program and the requirements for admission to college, for which credit shall be given, it is distinctly understood that all secondary schools will not offer opportunities for the pursuit of all these subjects, and that the colleges will select those only which they deem wise and appropriate.

VI. *Resolved*, That, while the committee recognizes as suitable for recommendation by the colleges for admission the several studies enumerated in this report, and while it also recognizes the principle of large liberty to the students in secondary schools, it does not believe in unlimited election, but especially emphasizes the importance of a certain number of constants in all secondary schools and in all requirements for admission to college.

Resolved, That the committee recommends that the number of constants be recognized in the following proportion, namely: four units in foreign language (no language in less than two units), two units in mathematics, two in English, one in history, and one in science.

VII. *Resolved*, That the colleges will aid the secondary schools by allowing credit toward a degree for work done in secondary schools, beyond the amount required for entrance, when equal in amount and thoroness to work done in the same subjects in college.

VIII. *Resolved*, That for students who have met a definite requirement in any science, and who continue the subject in college, it seems to us desirable that there be provided a suitable sequel to the school course in continuation of the study; such students being in no case placed in the same class with beginners.

IX. *Resolved*, That we approve of encouraging gifted students to complete the preparatory course in less time than is required by most students.

X. *Resolved*, That in general we recognize in schools the admissibility of a second year in advanced work in the same subject, instead of a second year in a related subject; for example, two years in biology instead of one year in biology and one year in chemistry, where local conditions favor such an arrangement.

XI. *Resolved,* That it is desirable that colleges should accept, in addition to the year of United States history and civil government already recommended, at least one half-year of intensive study of some period of history, especially of the United States.

XII. *Resolved,* That we recommend that any piece of work comprehended within the studies included in this report that has covered at least one year of four periods a week in a well-equipped secondary school under competent instruction should be considered worthy to count toward admission to college.

XIII. *Resolved,* That it is desirable that our colleges and universities should accept as a unit for admission a year's work in economics, including under this head a course in elementary political economy, supplemented by adequate instruction in commercial geography and industrial history.

XIV. *Resolved,* That we recommend an increase in the school day in secondary schools, to permit a larger amount of study in school under school supervision.[1]

The Committee thus endorsed the principles of election, but while it "recognized the principle of large liberty to the students in the secondary schools, it did not believe in unlimited election, but especially emphasized the importance of a certain number of constants in all secondary schools." The Committee did not construct or suggest programs for the schools, but undertook to deal with the *courses of study*, that is, the quantity, quality, and method of work in any given subject of instruction, as the units out of which curricula and programs are framed.

These courses of study constitute so many national norms, or units, out of which any school may make up as rich a program of studies as its means and facilities permit; a program, moreover, which may be made to yield several curriculums, or, possibly, almost as many curriculums as there are students, each curriculum perhaps being better than the others, from an individual point of view.... The fundamental problem... in the minds of the Committee at least, is to formulate courses of study in each of the several subjects of the curriculum which shall be substantially equal in value, the measure of value being both quantity and quality of work done.... What is to be desired, and what the Committee hopes may become true, is that the colleges will state their entrance requirements in terms of national units, or norms, and that the schools will build up their programs of studies out of the units furnished by these separate courses of study.[1]

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[1] *Report of the Committee on College Entrance Requirements,* in National Educational Association, *Proceedings and Addresses,* pp. 655 ff. (Chicago, 1899.)

A national currency of norms. The Committee thus sought to establish a national educational currency in terms of norms (or units, which came to be more generally used). There was thus endorsed the suggestion of the Committee of Ten of the equivalence of studies on a time-allotment basis. The quantitative measure had already been adopted by the New York State Board of Regents in 1891, when it published its suggested courses of study. Subjects presented for the Regents' diplomas were evaluated in terms of "counts," a count representing ten weeks' work in a course pursued parallel with two others, and requiring five recitations each week.[2]

The recommendations of the Committee on College Entrance Requirements began to be generally adopted when the Carnegie Foundation for the Advancement of Teaching employed this ready measure as one method for evaluating college standards. The Foundation's definition of the unit was almost universally accepted, both in colleges and high schools; "a unit is a course of five periods a week throughout an academic year."[3]

The quantitative measure recommended by the Committee on College Entrance Requirements had the obvious advantage that it promoted flexibility and elasticity in the high-school studies, and in that it threw the door wide open to the admission of other than the standard subjects recommended by the Committee. It was, however, too simple; to organize parcels of knowledge or subjects of equal size and of equal value from the point of view of time-allotment was relatively easy; but the twelfth Resolution of the Committee, in recommending equivalent national norms, also contained the reservation that one condition of equivalence is competent instruction — a condition that has not yet been reached even to the extent recommended by the Committee that "teachers in secondary schools should be college graduates, or have the equivalent of a college education."

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[1] *Report of the Committee on College Entrance Requirements*, in National Educational Association, *Proceedings and Addresses*, pp. 671 f. (Chicago, 1899.)

[2] See University of the State of New York, *105th Annual Report of the Regents*, p. 160 (Albany, 1893); see also pp. 405 f. above.

[3] Carnegie Foundation for the Advancement of Teaching, *Annual Report, 1906*, p. 38; see also *Annual Report, 1907*, pp. 69 f.

The *Report*, to some degree, for the time being, laid the foundation for harmonizing the relations between colleges and high schools; the problem was to be reopened again later as the high-school curricula expanded and new demands for recognition by the colleges were to be made. In general, the *Report* responded to the needs of the times. Together with the *Report* of the Committee of Ten, it defined more clearly the scope and function of the high school. The further growth of this institution was made possible by the clear enunciation of two principles contained in one of the preliminary reports of the Committee on College Entrance Requirements. The first was:

> Throughout the course of secondary instruction surely there must be no Procrustean bed which every pupil by some process of dwarfing or stretching must be made to fit, but natural endowments, as soon as discovered, should have full scope, within certain limitations.

The second principle was thus stated:

> The secondary schools are the schools of the people, and the people have demanded and in still more effectual ways will demand, that their courses be practical, beneficial, disciplinary.

Forces in the further expansion of the high school

Status of the high school at the beginning of the twentieth century. The twentieth century thus opened with the conception of the high school as an institution designed to meet the needs of the pupils attending it and of the public supporting it, and ready to offer subjects as they were demanded on the principle that all subjects taught for the same length of time were equal in value. This principle at once furnished an entirely different setting for the further development of secondary education in the United States from that which prevailed in European countries, where the only result of years of unrest had been the grudging recognition of the equivalence of modern with the classical languages, and the acceptance of the sciences as proper subjects for a liberal education.

Another important development corroborated this principle. One of the earliest contributions from the recently created laboratories of experimental psychology had been not merely the complete overthrow of the faculty psychology, but the denial of the validity of the doctrine of formal discipline or transfer of training except under somewhat limited conditions. In other words, an attack was made on the assumption of disciplinary values which had already been claimed by Isocrates and Quintilian, and which had justified the limited secondary-school curriculum, more especially from the time of Locke. Disciplinary values, according to this theory, are specific and not general; transfer of training occurs only when there are present, in two or more subjects of instruction, identical elements of content and form. That there is some transfer is not denied, but the real question to be answered was the extent to which it occurs and the method by which it is secured. The problem was thus summarized by Thorndike:

> No one can doubt that all of the ordinary forms of home or school training have some influence on mental traits in addition to the specific changes which they make in the particular function the

improvement of which is their direct object. On the other hand, no careful observer would assert that the influence upon the other mental traits is comparable in amount to that upon the direct object of training. — The real question is not, "Does improvement of one function alter others?" but, "To what extent, and how, does it?" [1]

The general results of continued experiments showed that the extent of transfer was slight, although more recent studies indicate that the whole problem will probably be reopened once more.[2] At the time, however, the attack on the disciplinary values fitted in admirably with the temper of the country, which was ready to enter upon an expanded program of secondary education for all and to organize a high school which would meet the diversified demands not only of those who were planning to enter college, but for all adolescents.

This program was made possible not only because of the traditional faith in education and the equalization of opportunities, but by the remarkable increase of the country's wealth, which rose from $89,000,000,000 in 1900, to $321,000,000,000 in 1922 — an increase unparalleled in the history of the world. Even if due allowance is made for the fluctuation in the value of the dollar, this rise represents an increase of about one hundred per cent. The annual income of the American people has witnessed an equal growth from $27,000,000,000 in 1909, to $91,000,000,000 in 1929. Although only a small fraction of this wealth was devoted to education, it nevertheless made possible a remarkable development in the provision of high schools, the number of these rising from 6005 schools and an enrollment of 519,251 pupils (216,207 boys and 303,044 girls) in 1900, to 18,116 schools and an enrollment of 4,217,313 pupils (2,028,722 boys and 2,188,591 girls) in 1928. To these figures should be added 1978 private secondary schools with an enrollment of 110,797 pupils (55,734 boys and 55,063 girls) in 1900, and 2448 schools with an enrollment of 269,249 pupils (128,596 boys and 140,653 girls) in 1928. The increased enrollment of pupils has been due not merely to the increase in wealth and the desire of parents and the public to give every boy and girl a chance, but also to the increased complexity of the new industrial age. The rapid development of the utilization of machinery and labor-saving devices has made it possible for industry to dispense with the labor of young persons, so that few boys or girls can obtain employment, under the age of sixteen, that is in any way promising for their future.

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[1] Thorndike, E. L. *The Psychology of Learning*, p. 358. (New York, 1914.) See also Thorndike, E. L., *Educational Psychology* (New York, 1910); Heck, W. H., *Mental Discipline and Educational Values* (New York, 1909); and Inglis, A. J., *Principles of Secondary Education*, pp. 394 ff. (Boston, 1918).

[2] Orata, P. T. *Theory of Identical Elements*. (Columbus, O., 1928.)

The junior high school. Another cause of the increase is to be found in the extension of the period of secondary education. In 1888, President Eliot had suggested the desirability of a reorganization of the high school, and in 1893 the Committee of Ten, and in 1899 the Committee on College Entrance Requirements, had also recommended a redivision of elementary and secondary education into two six-year periods, instead of the prevailing division into eight and four years. As a result of these recommendations, which continued to be urged by the Committee of Five of the National Education Association in 1907, 1908, and 1909, a number of cities soon began to reorganize their educational systems, but introduced a further division in the secondary school resulting in the 6–3–3 plan — six years of elementary education, and three years in the junior and three years in the senior high school. Junior high schools were established in Columbus (Ohio) in 1908, Berkeley (California) and Concord (New Hampshire) in 1910, and Los Angeles in 1911. Variations of this plan have been adopted, but in general the 6–3–3 became the more usual form. The movement for reorganization was slow, but by 1928 there were 1403 separately organized junior high schools, and 2429 schools with a junior-senior organization. This development has meant the increased retention of boys and girls in school up to the age of fifteen, or one year beyond the usual age for completing the elementary school.[1]

Curriculum changes. The mere provision of high schools, the faith in equality of opportunity, and the increased wealth of the country are in themselves insufficient to explain the phenomenal increase in the high-school enrollments. The supply of schools without a corresponding change in the content of the work offered would not have attracted the vast army of boys and girls who trooped to the high schools. The American public, with whom the control of education ultimately rests, had to be convinced that the pupils and society were to receive an adequate return for the increasing expenditure on education. The popularity of secondary education was assured by a realistic attack on the problem, and by a breadth of vision and imagination which was ready to question and, if necessary, to depart from tradition. The burden of responsibility devolved on the leaders in the educational profession who looked upon it as their duty to take into consideration all the factors affecting adolescents and their interests, the needs of this clientèle, and the demands of society in an industrial age.

Secondary education had inherited from the investigations of the Committee of Ten and the Committee on College Entrance Requirements a traditional list of subjects that might be appropriately taught in the high school — English, foreign languages, natural science, mathematics, history, and geography. The only other groups of subjects that had been adopted generally in the high schools were those preparing for commercial or clerical pursuits. The schools had also inherited the principle of the equivalence of subjects when taught for the same length of time, which, with the results of experimental study of the doctrine of transfer of training, made it possible to add new subjects as the demand arose.

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[1] On the junior high school see Briggs, T. H., *Junior High School* (Boston, 1920); Koos, L. V., *Junior High School* (New York, 1927); and Smith, W. A., *Junior High School* (New York, 1925).

The high schools continued, for some time, with the standard subjects, until investigations showed, first, that only a small portion of pupils leaving the elementary schools proceeded to the high schools, and second, that of these approximately only one third remained to graduate. It was clear from these studies that the high-school curricula were not adapted to the needs of a large percentage of the pupils.[1] The recognition of the heterogeneity of the high-school population was corroborated by the contributions that flowed in increasing volume from the psychological studies of individual differences, by the analysis of the social backgrounds of the pupils, and by investigations of their choice of careers.[2] The evidence was clear that the function of the high school was to expand the types of curricula offered if justice were to be done to the pupils and to the public. Secondary education in the United States could not be selective, in the European sense, nor could it claim to be a democratic institution if it devoted itself to the training of an élite, successful because of its ability to cope with a purely academic curriculum. The duty of the American high school, it was recognized, was to do the best for each pupil according to the measure of his ability and interests.

New light on the period of adolescence. In 1907 appeared G. Stanley Hall's monumental work on *Adolescence* (preceded in 1906 by *Youth*), which focussed attention and which threw a flood of light on the period of adolescence as a period of physical and mental growth, and of new and changing interests. The appearance of Hall's work stimulated a series of special investigations into the physiological and psychological meaning of adolescence. Not the least important contribution made by

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[1] Inglis, *op. cit.*, chap. IV; Koos, L. V., *The American Secondary School*, chap. III (New York, 1927).

[2] Inglis, *op. cit.*, chaps. II and III; Koos, *op. cit.*, chaps. II and III.

Hall was his analysis of the social changes and interests produced by the growing urban environment resulting from the rapid industrial developments, as contrasted with life in a predominantly agricultural environment. The studies of adolescence exercised a profound influence on organization and administration, subject-matter, methods, and discipline in secondary education.[1]

All these influences had already tended to loose American secondary education from its traditional moorings, although, as the history of the secondary-school curriculum in the nineteenth century has shown, there has always been a tendency to question tradition and to add subject after subject in the hope of meeting individual needs and abilities.

The contribution of John Dewey. From the point of view of educational philosophy the strongest influence in redirecting the aims of American education has been that of John Dewey. His general thesis that education is life and not preparation for life, that the function of the school is to foster the growth of the pupils along the lines of their interests rather than to impart subjects that may be of value to them later, and that the aim of education is social, created a revolution in American thought and gave philosophical interpretation to trends that had already manifested themselves. Accordingly the principles upon which secondary education has been built emphasize the present needs and the growth of the pupils, instead of some future needs; to include subjects in the curriculum because of some assumed deferred values is to court failure; and everything that is taught must have immediate value commensurate with the time devoted to it. On the side both of method and content this theory has been supplemented by the psychologist's enunciation of the laws of learning in terms of readiness, effect, and practice.[2]

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[1] Inglis, *op. cit.*, chap. I; Koos, *op. cit.*, chap. II.

[2] See Thorndike, E. L., and Gates, A. I. *Elementary Principles of Education*, chap. V. (New York, 1929.)

These principles furnished the basis for the discarding or the reorganization of traditional subjects and the elimination from them of elements that are formal, and for the introduction of a vast number of new subjects that were waiting for admission. This movement had its counterpart in American life in general in the development of industrial efficiency, with its demand for economy in production and the elimination of wasteful motions. How this principle operated in education may be illustrated by the reasons assigned by the superintendent for dropping Greek from the high-school curriculum in Newton, Massachusetts:

> The school administrator simply cannot avoid assigning educational values every time he determines the expenditure of a dollar. ... It has been determined, wisely or unwisely, thoughtlessly or intelligently, that in that school (Newton High School) just now 5.9 pupil recitations in Greek are of the same value as 23.8 pupil recitations in French; that 12 pupil recitations in science are equivalent in value to 19.2 pupil recitations in English; and that it takes 41.7 pupil recitations in vocal music to equal the value of 13.9 pupil recitations in art.
>
> Thus confronted, do we feel like denying the equivalency of these values — we cannot deny our responsibility for fixing them as they are? That is a wholesome feeling, if it leads to a wiser assignment of values in future. Greater wisdom in these assignments will come not by reference to any supposedly fixed and inherent values in these subjects themselves, but from a study of local conditions and needs. I know nothing about the absolute value of a recitation in Greek as compared with a recitation in French or in English. I am convinced, however, by very concrete and quite local considerations, that when the obligations of the present year expire, we ought to purchase no more Greek instruction at the rate of 5.9 pupil recitations for a dollar. The price must go down, or we shall invest in something else.[1]

New national interests. The high school was thus ready to respond to the needs of an increased student body and to social demands. New fields of study, such as agriculture, home economics, and vocational subjects, were introduced; some subjects were reorganized to serve as an introduction to later studies, such as general science, general mathematics, social studies (history, civics, economics, and geography); and new attention began to be given to such subjects as health, music, and art and their appreciation. A strong stimulus was given to the development of practical arts and vocational subjects by the passing, in 1917, of the Smith-Hughes Vocational Education Act by the Federal Government, which provided funds for the encouragement of education in trades, agriculture, and home economics. The expansion of the curricula in so many different directions stimulated the establishment of high schools in all parts of the country, urban and rural, until to-day the high school building is frequently the most important architectural feature of the remotest village.

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[1] *Annual Report of the School Committee*, Newton, Massachusetts, LXXII (1912), pp. 99 f.

Reformulation of aims. The various trends and influences were brought to a focus, in 1913, when the National Education Association appointed a Commission on the Reorganization of Secondary Education, for the following purposes; to:

> 1. Formulate statements of valid aims, efficient methods, and kinds of materials whereby each subject may best serve the needs of high school pupils. 2. Enable the inexperienced teacher to secure at the outset a correct point of view. 3. Place the needs of the high-school before all agencies that are training teachers for positions in high schools. 4. Secure college entrance recognition for courses that meet the needs of high-school pupils.

The Commission consisted of fourteen committees — English, social studies, natural sciences, modern languages, ancient languages, household arts, manual arts, music, business, agriculture, a committee on articulation of high school and college, and a reviewing committee. Each of these committees later published their *Reports*, which were issued by the United States Bureau of Education. Subjects on which these committees did not report were dealt with by independent organizations; the National Committee on Mathematical Requirements of the Mathematical Association issued a *Report on the Reorganization of Mathematics in Secondary Education* in 1923; the Advisory Committee of the American Classical League published its *Classical Investigation* in 1925; the *Reports on Modern Language Teaching* prepared by the American and Canadian Committees on Modern Languages were issued in 1929 and 1930.

The Commission on the Reorganization of Secondary Education issued a general report, in 1918, on *Cardinal Principles of Secondary Education*,[1] in which the basic principles were laid down that secondary education should be determined: (1) by the needs of the society to be served; (2) by the character of the individuals to be educated; and (3) by the knowledge of educational theory and practice available. The Commission drew attention to the growing complexity of community life, and the relations of the individual to state, national, and international affairs; it stressed the development of specialization in industry; and it noted the importance of training for leisure. It summarized the problems of secondary education in two statements:

> (1) The purpose of democracy is so to organize society that each member may develop his personality primarily through activities designed for the well-being of his fellow-members and of society as a whole.
>
> (2) Education in a democracy, both within and without the school, should develop in each individual the knowledge, interests, ideals, habits, and powers whereby he will find his place and use that place to shape both himself and society toward ever nobler ends.

To promote these ends, the curricula of the high schools should be so organized as to meet the following objectives: (1) health; (2) command of fundamental processes; (3) worthy home-membership; (4) vocation; (5) civic education; (6) worthy use of leisure; and (7) ethical character. These objectives gained immediate and wide acceptance and, although they were intended to serve as points for the interrelation of subject-matter and to promote education as a unitary and continuous process, no marked effect followed in the making of courses of study.

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[1] U.S. Bureau of Education, *Bulletin* (1918), no. 35.

Koos's elaboration of aims and functions. Because this statement of objectives appeared too comprehensive for a full consideration of the obligations of secondary education, Professor Koos essayed a comprehensive portrait of aims and functions of secondary education, based on published statements of leaders in education. He found the aims and functions of secondary education stated in the following order:

> Civic social responsibility, occupational efficiency, recreational and æsthetic participation, individual differences, general or liberal training, physical efficiency, democratic secondary education, college preparation, exploration and guidance, religious training, recognizing adolescence, meeting life's needs, domestic responsibility, intellectual efficiency, training in fundamental processes, training for leadership, selection for higher education, mental discipline, training the senses, and community service.

These statements Koos further formulates into four aims: (1) Civic-social-moral responsibility; (2) recreational and æsthetic participation and appreciation; (3) occupational efficiency (including preparation for higher institutions); and (4) physical efficiency. The functions he listed as follows: (1) Achieving a democratic secondary education; (2) recognizing individual differences; (3) providing for exploration and guidance; (4) recognizing the adolescent nature of pupils; (5) imparting knowledge and skills in the fundamental processes; and (6) fostering transfer of training (with guarded acceptance).

The American *vs.* the European concept. It will be noticed how far such a statement has advanced beyond the European concept of the aims and functions of secondary education. Fundamentally it represents the recognition that a democratic system of education must be conceived in as broad terms as possible. It avoids any attempt to consider the meaning of liberal education or culture, and rests on a vague optimism that the cause of culture may be advanced if the material needs of the individual and of society are assured. The statement is, however, more definite and objective than that of the Commission on the Reorganization of Secondary Education. At least it is clear that the American high school is intended to cater to the needs of all, and not to select the few who can profit from and appreciate the meaning of a liberal education defined in traditional terms. That the high school is successful in reaching an increasing percentage of the adolescents of the country is shown by the fact that fifty per cent of the boys and girls of the ages fifteen, sixteen, seventeen, and eighteen were enrolled in public high schools in 1928. That the high school is still selective in character is not due to its aims, but to social conditions which have not yet been attacked.[1]

Before proceeding to a consideration of the curriculum it is necessary to add the aims of the Junior High School, which have been thus summarized by Professor Briggs:

> First, to continue, in so far as it may seem wise and possible, and in a gradually diminishing degree, common, integrating education; second, to ascertain and reasonably to satisfy pupils' important immediate and assured future needs; third, to explore, by means of material in itself worth while, the interests, aptitudes, and capacities of pupils; fourth, to reveal to them, by material otherwise justifiable, the possibilities in the major fields of learning; and, fifth, to start each pupil on the career which, as a result of the exploratory courses, he, his parents, and the school are convinced is most likely to be of profit to him and to the State.[2]

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[1] See Counts, G. S. *The Selective Character of American Secondary Education.* (Chicago, 1922.)

[2] Briggs, T. H. *The Junior High School*, p. 26. (Houghton Mifflin Company, Boston, 1920.)

Present curriculum practices. The curricula of the high schools reflect the aims and the series of influences that have combined to affect the concept of secondary education. The last twenty years have witnessed a rapid expansion in the list of subjects offered by the high schools. The programs offer as wide a variety of studies as is justified by the capacities and needs of the pupils and the ability of the community to provide them. The curricula are so organized as to insure a proper balance in accordance with the aims and functions of secondary education, and to enable the pupil to secure the maximum benefit from his stay in school. Hence as much flexibility as possible is provided, so that the necessary adjustments can be made by the pupil with a minimum of loss. So far as possible, differentiation is secured along the lines of significant differences in the careers which pupils are preparing to enter.

The methods of constructing curricula vary. The earlier practice of complete free election has disappeared. In some cases pupils may select from a large number of curricula, in which all the subjects are prescribed; in others the curricula are made up of constants and variables, that is, of subjects that all pupils are required to take and subjects that are elected according to the pupils' needs and capacities, usually with the advice of teachers and principals. The curricula offered in the Los Angeles High Schools may be cited as an example of the first type. They are: agriculture, art, drafting, engineering preparatory, home economics, literary, music, scientific, social science, accounting, salesmanship, automobile industry, building industry, electrical industry, mechanic arts, printing, and elective.[1] There is, however, as yet no uniformity of practice, either in nomenclature or in the subjects required in each curriculum, or in the constants where they are prescribed. In a study of 702 curricula in 150 programs, Koos found 26 types, distributed as follows:[2]

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[1] Counts, G. S. *The Senior High School Curriculum.* (Chicago, 1926.)

[2] Koos, *op. cit.*, p. 523.

College — preparatory	73	History or social science	6
Classical	40	Technical (preparatory)	23
Latin	13	Normal — preparatory	25
Academic	23	Nursing — preparatory	4
"Regular"	2	General	72
Foreign Language	6	English	12
French	2	Commercial	142
Spanish	1	Normal (for rural teachers)	21
Modern Language	9	Industrial or manual arts	63
Latin — scientific	8	Household arts	55
English — scientific	3	Agriculture	16
Scientific	66	Fine Arts	6
Mathematics	4	Music	7

It will be remembered that in each course any subject pursued for the same length of time is equivalent to any other subject. Hence the problem of educational values has ceased to be of significance; any subject that is needed by the pupil and is desirable from the point of view of social demand has an equal right to consideration with any other subject. This principle has not, however, commended itself wholly to many colleges which still refuse to recognize certain subjects for purposes of admission to college, so that the old issue between the high schools and colleges is again being raised. The democratization of high-school opportunities, the justice of which no one would deny, and the adoption of the quantitative measure or the system of units, intended originally to be applied to standard subjects, have been worked out to their logical conclusion. It must be noted, however, that the developments here discussed have taken place within less than twenty-five years. The ultimate drift cannot as yet be anticipated.

Further educational reorganization. Of the new movement for a complete reorganization of the educational system into a 6–4–4 plan, which would transfer two years of college work within the high school, it is too early to speak.[1]

Another movement, which also is of recent date, aims to correct what appears to be one of the weaknesses of the high school — the tendency to cater to the average and to neglect the bright and gifted pupil. Here, too, experiments to correct this tendency have but recently been begun.[1] In general it is admitted that the graduate of an academic course in an American high school is about two years less advanced than the graduate of a similar course in a European secondary school, but it must be added that the high school is seriously attempting, through the flexibility and elasticity of its programs, to avoid the wastage that accompanies the selection in the European schools. According to a report issued by the United States Office of Education [2] "the expansion of the high-school program enabled high schools now to report enrollments in about 250 subjects" or branches of subjects.

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[1] See Koos, L. V. *The Junior College.* (Minneapolis, 1924.)

Development of extra-curricular activities. To the expansion of the high-school programs must be added the remarkable development of extra-curricular activities to promote the extra-scholastic interests of the pupils. So important have these become that a special body of literature has grown up on the subject, and teachers specially trained in them are employed to lead, guide, and supervise them. The following brief list will convey some idea of their scope:

> Among the more important are the student council, class organizations, athletic teams, literary club, French club, natural-science club, gym club, library club, religious organization, radio club, glee club, orchestra, boy scouts, girl scouts, ukelele club, mandolin club, Greek-letter fraternities, and National Honor Society.[3]

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[1] See *Educational Yearbook* of the International Institute, Teachers College, Columbia University (1926), pp. 552 ff.

[2] U.S. Office of Education, *Bulletin* (1929), no. 35, pp. 7 ff., and Tables 59 and 62.

[3] Counts, G. S. *The Senior High School Curriculum*, p. 118. (Chicago, 1926.) See also Fretwell, E. K., "Extra-Curricular Activities of Secondary Schools"; in *Teachers College Record*, XXIV (1923), pp. 60 ff.; Odell, C. W., and Blough, J. H., "An Annotated Bibliography Dealing with Extra-Curricular Activities in Elementary and Secondary Schools"; in *University of Illinois Bulletin* (1926), no. 29; *Educational Yearbook* (1926), p. 580.

School journalism, debating, and club and dramatic societies might be added. Some of the activities, once begun outside of the curriculum, have in many cases been incorporated in it, such as journalism, dramatics, glee clubs, orchestras, while in other cases scholastic credit has been given for some extra-curricular activities.

The high-school teachers. Ultimately the success of any school system depends upon the training and preparation of its teachers. The influx of pupils to the high schools in the last generation, and the necessity of providing adequate accommodations to meet it, have tended to lead to a neglect of this basic element of success. The result is that standards of teacher qualifications vary throughout the country. California alone requires a year of study beyond the bachelor's degree for appointments as high-school teachers, but this example is unique. Generally, graduation from college with some courses in education are required throughout the country, but this is a standard that is not universally met. In the schools accredited by the North Central Association, 94.9 per cent of the teachers of academic subjects held bachelor's degrees, and 11.5 per cent master's degrees; of the teachers of vocational subjects 58.8 per cent had degrees, and 41.2 per cent held no degree. The possession of a degree may, however, be only a rough estimate of a teacher's qualifications.

More serious is the fact that many teachers give instruction in subjects in which they have had little or no preparation. According to the *Report of the Classical Investigation* (1925), approximately two thirds of the teachers of Latin in cities of more than 100,000 population had studied the subject for eight or more years; 90.5 per cent for seven or more; but in high schools of small communities, 2500 or fewer inhabitants, only 18 per cent had studied Latin for eight or more years, and only 28 per cent for seven or more. The situation was worse among modern-language teachers; the *Modern Language Investigation* reported, in 1929, that teachers of German had had on an average 6.1 years of preparation, of French 4.9 years, and of Spanish 3.9 years. This is especially true in the smaller high schools which, in attempting to carry out the general aims and functions of secondary education, offer more subjects than their staff available is prepared to teach. Although more college students enter the teaching profession than any other, the colleges have not yet satisfactorily met the problem of combining professional preparation with such subject groupings as are likely to prepare the teachers adequately for the conditions that prevail in the high schools. In the larger cities with large high schools, the problem is not serious; but 30.4 per cent of the high schools have less than fifty pupils, and 56.5 per cent have less than one hundred pupils. When to the inadequate preparation is added the further fact that teaching is not a life career, the complexity of the situation becomes more obvious.[1] The problem of standards becomes more serious when it is recalled that, except in New York State and except for the limited work of the College Entrance Examinations Board, external examinations have virtually disappeared.

The American high school a unique institution. The public high school of the United States is, however, a unique institution; in its present form it is of recent origin, and it is still in a stage of transition. In the history of education it is the first experiment in the attempt to provide a suitable education for all the children of all the people at public expense in a single institution; that is, the American high school is essaying the task distributed in other countries among a great variety of schools, only one of which grants the privilege of further advancement to higher education. Few secondary schools elsewhere have won the appreciation and support of the public as have the American high schools. Their social function may be estimated by comparison with the small number of private schools — 2448 with an enrollment of 248,076 pupils, compared with 18,116 public high schools attended by 4,217,313 pupils in 1928. Of the 2448 private schools nearly three fourths are denominational, while of the 659 non-sectarian schools some have been established for experimental purposes, others are found mainly in the larger centers of population.

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[1] Of the many studies on the high-school teacher only two can be cited here: Josselyn, H. W., "Survey of Accredited High Schools and Professional Directory"; in *University of Kansas Bulletin* (1914), xv, no. 16; and Hutson, P. W., in Fitzpatrick, E. A., and Hutson, P. W., *The Scholarship of Teachers in Secondary Schools* (New York, 1927). Other references will be found in Koos, *op. cit.*, chap. XVIII.

The public high school has thus begun to solve the problem of providing secondary education for all, a problem which is only just becoming a practical issue in other countries; this it has been able to do by breaking with tradition, but its qualitative standards still remain to be developed out of the vast experiment that is proceeding both with subject-matter and methods. This task may perhaps be beset with as many difficulties as now confront those countries that are planning to organize a democratic system of education for adolescents, but fear to surrender that quality of education for the best minds that has been inherited from tradition. The American high school will at least serve the world as an educational laboratory in action, as it has served the United States by distributing a fair average of intellectual training throughout the population, even though it has been for the time being at a sacrifice of the best minds. It represents, as do all American institutions when contrasted with European, the spirit of adventure and innovation which refuses to be bound by tradition and is always ready to break new paths.

It is this spirit that combines at once the elements of strength and weakness of American education, and of the high school in particular — a readiness to face the situation as it exists combined with an impatience to see quick results. The contribution of the United States to the solution of the problem of organizing a democratic system of education is obvious; the tasks of perfecting the machine, of infusing the schools with a high sense of social purpose in a new age, of maintaining standards of hard work and the will to work and to think hard, of making adaptations that are genuinely educative and not superficially responsive to needs, and at the same time of preserving standards of mental vigor — these still remain to be solved in the future with a teaching personnel commensurate in ability and qualifications with the grandeur of the experiment.

CHAPTER X

THE EDUCATION OF GIRLS

The present account of the history of the secondary education of girls will be limited to its development in an organized form since the beginning of the nineteenth century. Opportunities for the education of girls have always existed, and history is full of the names of women who attained distinction in education, but it has only been within the last century and a half that serious attention has been given to the problem.[1]

In Germany

Beginnings of interest in education of women. Interest in the higher education of women was aroused in Germany by Fénelon's *De l'Education des Filles* (1681), and the school established at Saint-Cyr by Louis XIV in 1686 and placed under the charge of Madame de Maintenon. Francke established, in his series of schools at Halle, a Gynecaeum for the daughters of nobles, which was imitated in other parts of Germany. Besides the schools for daughters of the upper classes, others arose for those of the middle classes to provide an education both general and preparatory for domestic life. These schools paralleled the development, in the eighteenth century, of the real schools for boys that arose under the influence of Semler and Hecker.

Frederick the Great was, however, opposed to the expenditure of public funds for the education of girls — an attitude adopted also by the municipal authorities. Accordingly, most of the schools that now sprang up were private in character, and were modeled on the schools in France for the training of girls in social accomplishments. The national revival at the beginning of the nineteenth century led to a change in attitude; as a result, a royal school was established in Berlin, in 1811, to prepare girls for the teaching profession, followed by another in 1832. In 1845 and in 1853 regulations were issued for the examination of women teachers, thereby giving legal governmental recognition to the profession.

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[1] For the earlier history see Woody, T., *A History of Women's Education in the United States*, I, chaps. I and II (New York, 1929), and the references there given.

Side by side with these professional institutions came the provision of schools (*höhere Töchterschulen*) by municipal authorities; in 1840 there were fifty-six public secondary schools for girls, and in 1860 the number had increased to one hundred and three. The increasing number of wealthy families of the middle class demanded the establishment of such schools, in which their girls were taught religion, German, French, handwork, and a little science; there were, however, no regulations or general plans governing these schools.

Under the Empire. After the creation of the German Empire, a number of teachers met at Weimar and demanded the provision of schools for girls to be maintained by state and municipal authorities, and offering a ten-year course with two foreign languages. This was followed by the organization, in 1873, of the German Association for the Secondary Education of Girls. This Association urged that the education of girls should be ethical and æsthetic, rather than intellectual. In 1874, the Prussian Government issued new regulations for the examination of teachers in girls' schools, but the standards were not as high as for teachers in boys' schools. The movement for the education of girls was promoted by the development of organizations for the emancipation of women, such as the *Lette-Verein* (1865), the *Allgemeiner Deutscher Frauen-Verein* (1865), and the *Frauen Bildung-Reform Verein* (1858), all of which demanded an education for girls of the same standards as for boys, and leading to the universities.

Admission to the universities. An official course of study covering nine years was prescribed by the Prussian Government, in 1894; following new regulations in this same year for the examination of women teachers, special courses for their preparation were organized at the Viktoria Lyzeum in Berlin, and at the Universities of Göttingen, Bonn, and Königsberg. The admission of girls to the universities was delayed partly because of the opposition of the universities in general, which were ready to admit women only to some courses as auditors, and to the absence of institutions that could give an adequate preparation for the *Abiturientenprüfung*. This deficiency was corrected in 1893, when a number of courses were established in connection with existing schools to give the necessary preparation; in 1896, when girls were first permitted to take the *Abiturientenprüfung* in one of the boys' secondary schools, six girls passed with high rank. Notwithstanding this evidence the Government continued its opposition to the establishment of secondary schools for girls similar to those for boys and distinct from the *höhere Mädchenschulen*, just as it refused to consider coeducation. Prussia was now confronted with the anomalous situation that, although the universities of Heidelberg and Göttingen had begun to admit women, following the example set by Baden in 1901, most of the women so admitted were foreigners, since so few opportunities existed in Prussia for the necessary preparation for admission to the universities.

Attitude of the Government. In 1899, a division for the education of girls was created in the Prussian Ministry of Education, but in general this did not mean any change in policy. The attitude of the authorities was indicated in a statement of the Minister of Education, in 1902, that the education of girls must be in the direction of the general problems then claiming the attention of educated women; their education was to be guided by the principle that "the ideal position of the German woman in the family shall be preserved as far as possible."

The protests of leaders of the movement for opportunities for girls, equivalent to those for boys, were unheeded.

The problem of the reorganization of secondary education for girls was discussed at a special conference, called for that purpose by the Ministry in 1904. The governmental authorities were opposed to the establishment of a system of schools similar to that for boys, primarily to prevent a considerable increase of women in the universities and in the liberal professions; the leaders of the women's movement, like Helene Lange, were equally opposed to any reorganization that would involve curtailed privileges. The Government, however, carried the day and the new system was definitely organized in 1908, with a ten-year course known as the *Lyzeum* as the central core, admitting pupils at the age of six for a three-years preparatory course, followed by seven years of secondary education in German, French, English, religion, history, geography, natural sciences and mathematics, drawing, singing, and handwork. This course was to be followed by a two-year course in the *Frauenschule*, a school for training in practical arts and the continuation of general subjects, and a four-years course in the *höheres Lehrerinnenseminar* to prepare teachers for elementary schools. At the age of thirteen those girls who planned to proceed to the *Abiturientenprüfung* might begin Latin, and a few years later continue with a course similar to those of the *Gymnasium* with Latin and Greek, or of the *Realgymnasium* with Latin and modern languages; those who intended to follow a Latinless course to the final examination began the special work of the *Oberrealschule* at the age of fourteen. The three courses leading to the *Abiturientenprüfung* were known as the *Studienanstalt*. There was thus established the cosmopolitan secondary school for girls, an innovation which has not yet been adopted for boys.

The present situation. No serious changes were introduced in the organization of secondary education of girls in the post-

War reorganization. Coeducation was seriously discussed as part of the reform, but has been rejected. As in German schools in general, all girls must attend the four-year *Grundschule* before entering a secondary school, the beginning of which is thus postponed by a year. The *Lyzeum* still constitutes the foundation of the girls' secondary school, and gives a course including religion, German, two modern languages, history, geography, mathematics, natural science, drawing, and music. This course may be continued for three years more in the *Oberlyzeum*, which, with a slight modification, may give a course similar to that of the *Oberrealschule*. At the end of the first three years of the Lyzeum pupils may enter on courses similar to those of the *Deutsche Oberschule*, the *Realgymnasium*, or the *Gymnasium*. In addition, there also exist *Aufbauschulen* for girls, who may enter from an elementary school at the age of thirteen and continue on a six-year course leading to the *Abiturientenprüfung*. The time distribution of the various types, except the *Aufbauschule*, appears in the following table:

Subjects	Lyzeum	Oberlyzeum	Oberlyzeum (Oberrealschule Type)	Deutsche Oberschule	Realgymnasium	Gymnasium
Religion	12	20	18	18	18	18
German	27	39	39	43	36	35
First Modern Language	27	39	36	41	36	30
Second Modern Language	12	24	21	13	16	..
Latin	..	..	..	..	28	38
Greek	..	..	..	..	..	32
History	11	20	20	25	20	17
Geography	12	18	18	18	12	12
Mathematics	24	36	39	35	36	32
Natural Science	14	23	28	30	21	18
Drawing	12	18	18	18	18	10
Music	8	10	10	10	10	9
	159	247	247	251	251	251

Additional time is provided in each program for sewing and physical training, and in the upper sections of all but the

Lyzeum time for free-activity groups (*Freie Arbeitsgemeinschaften*).[1]

In France

Beginnings of interest in secondary education of girls. The modern history of the secondary education of girls in France begins in the seventeenth century with an attack on convent education, and with the claims of the intellectual equality of the sexes which are pictured in the plays of Molière. The chief stimulus for the new movement came from Fénelon's *De l'Education des Filles* (1681), which opens with the words "Nothing is more neglected than the education of girls." Fénelon attacked the cloistered and unworldly education of the convent, and would entrust the education of girls to their mothers or to governesses. He emphasized the social importance of the education of women, but recognized differences between the sexes. For their education he recommended history, music, drawing, and dancing, and Latin under certain conditions. In the school established at Saint-Cyr, in 1686, by Louis XIV for the daughters of fallen officers, and placed under the charge of Madame de Maintenon, foreign languages were not taught and the time was devoted mainly to training in domestic pursuits. At the beginning of the eighteenth century, Rollin urged that Latin was not a necessary subject for the education of girls, even though women might be equal to men in ability.

Rousseau, and Napoleon. One of the chief influences in the development of girls' education was Rousseau's *Emile* (1761), in which is described the education of Sophie to become a suitable companion for Emile. He urged training in parental responsibility, and stressed the advantages of domestic upbringing as contrasted with education in a convent. During the Revolution the education of women became a political question; leaders like Talleyrand and Condorcet claimed an equal right to instruction for both sexes. A large number of private schools for girls sprang up during Napoleon's régime, but he showed no enthusiasm for the intellectual training of women. Napoleon did, however, establish two schools, one at Ecouen for the daughters and sisters of members of the Legion of Honor (1807), and the other at Saint-Denis for the children of officers above the rank of captain. The course of study organized under the influence of Madame Campan included French history, geography, arithmetic, writing, dancing, drawing, music, sewing, mending, practical housecraft, and religious instruction, to which was given the first place, Napoleon preferring to train women as "believers, rather than reasoners."

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[1] For the education of girls in Germany see Lange, Helene, and Baümer, Gertrud, in *Handbuch für die Frauenerziehung*, Part III (Berlin, 1903); Paulsen, *op. cit.*, II, pp. 774 ff.; Woody, *op. cit.*, I, pp. 77 ff.; Kandel, I. L., and Alexander T., *The Reorganization of Education in Prussia*, pp. 94 ff., 310 ff., and 542 ff.; Prettyman, C. W., "Higher Girls' Schools in Prussia"; in *Teachers College Record*, 1911, pp. 137 ff.

Beginnings of organization for the education of girls. The Government first turned its attention to the education of girls in 1819 and 1820, when teachers in girls' schools were required to be certificated. In *l'Education Progressive ou Etude sur le Cours de la Vie* (1828–38), Madame Necker de Saussure struck a new note in the movement. Woman is to be educated not in small accomplishments but to have an enlightened mind, that she may contribute to the stabilization of society through proper care and management of the family. In other words, the function of the educated woman in private life is to be as important for society as the function of the educated man in public life.

It was perhaps only a coincidence that, in 1828, girls' schools were placed under the same supervision as schools for boys, and that in 1837 lower schools (*pensions*) and higher schools (*institutions*) for girls were organized in the Department of the Seine. The lower schools taught morals and religion, reading, writing, and arithmetic, French, history of France, geography, elementary physics, natural history, modern languages, drawing, music, and needlework; to these subjects the institutions added history of French literature, rhetoric, ancient and modern history, and cosmography. Side by side with these schools, after 1834, special courses began to be organized and to flourish which offered instruction in a variety of subjects from which the student could select at will.

***Lycées* and *collèges* for girls.** It was not until 1867 that there began a movement to secure the provision of secondary schools for girls by the State, to supplement the private schools, since the instruction in even the best schools was, according to Jules Simon, "futile and incomplete, all the accomplishments, but nothing serious or elevating." In 1878, M. Camille Sée presented a bill to the legislature to extend the secondary-school system to girls. The bill was enacted into law in 1880, and provided for the establishment of secondary day-schools for girls by the State, in coöperation with the local authorities.

The *lycées* and *collèges* organized under this act provided a five-year course, divided into two periods of three and two years respectively. Girls were admitted at the age of twelve. The course of the first three years, as organized in 1897, consisted of moral instruction, French, modern language, history, geography, mathematics, natural history, physics and chemistry, domestic economy and hygiene, sewing, drawing, singing, and gymnastics. In the last two years moral instruction, psychology, French, ancient and modern foreign literatures in translations, modern language, history, geography, cosmography, common law, physics and chemistry, anatomy, physiology and hygiene were required subjects, while mathematics, a second modern language, sewing, drawing, singing, and gymnastics were optional.

Recent reorganization. After 1900, demands began to be made for the provision of a type of secondary education for girls that would prepare for the *baccalauréat* and admission to the universities. Under the existing system, girls who wished to enter the universities had to prepare privately for the *baccalauréat.* The demands were met by a decree of March 25, 1924, which reorganized the system. The five-year general course was replaced by a six-year course in French, modern languages, mathematics, science, history, geography, and drawing; to these subjects students working for the diploma of secondary education (*diplôme de fin d'études secondaires*) were required to add household management, handwork, music, ancient and modern foreign literatures in translation, psychology, and ethics. For girls intending to prepare for the *baccalauréat* the same program of studies was to be followed as in boys' schools, with some modification of the time-schedule to allow for instruction in subjects appropriate for girls — household economics, needlework, and music. Further identification of the courses in girls' schools with those in schools for boys was introduced by an *arrêté* of July 10, 1925.

Coeducation is not looked upon with favor in France. Girls are admitted to *collèges* for boys only when the total enrollment in these institutions is less than two hundred, or when other facilities for the education of girls are not available. The purpose of this restriction is to limit the number of girls proceeding to the *baccalauréat*, and thence to the universities and the liberal professions. This number has increased rapidly; thus the number of girls who passed the *baccalauréat* in philosophy rose from 21 in 1905, to 447 in 1915, and 1806 in 1926; and in mathematics from 5 in 1905, to 55 in 1915, and 329 in 1926. This increase in well-prepared girls is reflected in the rapid movement to extend the opportunities of women teachers to attain the same diplomas and degrees hitherto reserved for men.[1]

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[1] Farrington, F. E., *French Secondary Schools*, pp. 79 ff., 308 ff., and the references there given; Woody, *op. cit.*, pp. 58 ff.; *Educational Yearbook* (1924), pp. 261 ff.; (1925), p. 151 f.; (1927), pp. 122 ff.; (1928), pp. 77 ff.; Board of Education, England, *Special Reports*, XXIV, pp. 399 ff.

In England

Early attitudes. In England as everywhere, girls were for long educated privately. Schools, similar to the contemporary academies for boys, began to spring up in the seventeenth century. Thus Mrs. Bathsua Makin, who had taught the daughters of Charles I, and who wrote one of the earliest treatises on the education of girls in England, opened a school near London in which she offered to teach "all things ordinarily taught in other schools," namely, work of all sorts, needlework, dancing, singing, and keeping accounts to take up half the time, and Latin and French in the other half. "Those that please may also learn Greek, Hebrew, Italian, and Spanish." These subjects did not exhaust her versatility, for Mrs. Makin was also ready to teach drawing, preserving, pastry and cookery, astronomy and geography, arithmetic and history, and experimental philosophy. In her *Essay to revive the ancient Education of Gentlewomen in Religion, Manners, Arts, and Tongues, with an answer to the objections against this way of Education* (1673), she made a plea for the education of women along the same lines as men.

A number of boarding schools for girls sprang up in the same period; thus John Waver advertised that a boarding school was set up in Oxford for young gentlewomen, where they might be educated and instructed in the art of dancing, singing, music, writing, and "all manner of works," as well as French and English.

Early literature on the education of girls. An extensive literature now developed on the education of girls and women. In 1694 appeared Mary Astell's *Serious Proposal to Ladies for the Advancement of their true and greatest Interests*; in 1796 Defoe's *Essay on Projects*, in which he proposed academies "wherein such ladies as were willing to study should have all the advantages of learning suitable to their genius," denying them no sort of learning; in 1745 Hannah More's *Strictures on* *the Modern System of Female Education*; and in 1759 Mary Wollstonecraft's *Vindications of the Rights of Women and Thoughts on the Education of Daughters* (1787), in which she attacked the training of girls for the drawing room instead of as rational creatures and free citizens. The practice of his day was summarized as follows by Swift, in his *Essay on the Education of Ladies*:

> The care of their education is either left to their mothers or they are sent to boarding schools into the hands of English or French governesses... generally the worst and cheapest that can be gotten for the money.

Early Aims. The aims wavered between extreme religious training, preparation of the housewife, and training for fine society. Anything outside of these aims, it was feared, would turn their brains. Even Swift, in writing to a young lady, expressed the opinion "You can never rise in point of learning to the perfection of a schoolboy." In the Bluestocking era there was also a feeling that a woman, if she had learning, should conceal it as she would a physical defect. Nor did this tradition disappear in the early part of the nineteenth century. Miss Cobbe (1822–1904) states that, at the end of the eighteenth century, "there was no packing the brains of girls with facts"; besides "grammar and geography, and a very fair share of history, they learned to speak and read French with a very good accent and to play the harpsichord with taste." In her own day girls were expected to memorize pages of prose, practice showy and tasteless music, and to dance.

> Not that which was good in itself or useful to the community or even that which would be delightful to ourselves, but that which would make us admired in society was the *raison d'être* of each requirement. At the bottom of the scale were morals and religion, and at the top were music and dancing.[1]

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[1] Quoted in Gadesden, F., *The Education of Girls*; in Roberts, R. D., *Education in the Nineteenth Century*, p. 83 (London, 1901).

Beginnings of reform. As in Germany and France, the movement for the reform began with an attempt to provide suitable training for women who intended to teach. In 1846 an examination was established by the Governesses Benevolent Institution, on the basis of which diplomas were granted. Out of this there developed Queen's College, established in 1848 and chartered in 1853. With the creation of this college Archbishop Trench, Charles Kingsley, and Frederick Denison Maurice were associated. The skepticism that prevailed on the question of the higher education of women was well expressed by Maurice:

> We are aware that our pupils are not likely to advance far in mathematics, but we believe that if they learn really what they do learn they will not have got what is dangerous but what is safe. I cannot conceive that a young lady can feel her mind in a more dangerous state than it was because she has gained a truer glimpse into the conditions under which the world into which it has pleased God to place her, actually exists.

Among the first students were Frances Mary Buss and Dorothea Beale, both of whom became the founders of the modern system of education for girls; the first as headmistress of the North London Collegiate School (1850), and the second as principal of Cheltenham Ladies College (1857). Bedford Square College, which from its establishment in 1849 was associated with University College, London, became the Bedford College for Women in 1860 and was chartered in 1869. There another leader in the promotion and improvement of secondary education for girls, Dr. Sophie Bryant, was trained. In 1873, Girton College, which had been begun four years earlier at Hitchin, was established in Cambridge, and in 1880, Newnham College was organized out of courses begun for women in 1870. To the same period (1879) belong the foundation of Somerville College and Lady Margaret Hall at Oxford.

The Schools Inquiry Commission. In 1868, this Commission reported as follows on the status of the education of girls:

> We find as a rule a very small amount of professional skill, an inferior set of schoolbooks, a vast deal of dry, uninteresting task work, rules put into the memory with no explanation of their principles, no system of examinations worthy of the name, a very false estimate of the relative value of the several kinds of acquirement, and reference to effect rather than to solid work, a tendency to fill or adorn rather than to strengthen the mind.[1]

The Commission further found:

> Want of thoroughness and foundation; want of system; slovenliness and showy superficiality; inattention to rudiments; undue time given to accomplishments and those not taught intelligently or in any scientific manner; want of organization — these may sufficiently indicate the character of the complaints we have received in their most general aspect.[2]

The Commission was of the opinion that the essential capacity for learning is the same in both sexes, but that they required different types of education. It recommended different examinations, better preparation of teachers, the establishment of colleges of university rank for women, and the application of educational endowments to the education of girls. After the Endowed School Acts were passed, a number of girls' schools received endowments. The most important result of the *Report* was the establishment, in 1872, of the Girls' Public Day School Trust by the National Union for the Improvement of the Education of Women of all Classes, organized in 1871:

> To promote the establishment of good and cheap day schools for all classes above those attending the elementary schools with boarding schools in connection with them, when necessary, for pupils from a distance.
>
> To raise the social status of female teachers by encouraging wo-

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[1] School Inquiry Commission, *Report of the Commissioners*, I, p. 552. (London, 1868.)

[2] *Ibid.* p. 548 f.

> men to make teaching a profession, and to qualify themselves for it by a sound and liberal education, and by thorough training in the art of teaching, and to secure a test of the efficiency of the teachers by examinations of recognized authority and subsequent registration.

It was intended that the education given in the schools of the Trust should correspond to that given in the public schools for boys. The first school was opened in 1873; by 1900 the Trust had 33 schools, attended by more than 7100 girls.

University examinations opened. In 1865 girls had been permitted to take the Cambridge local examinations, and four years later pupils over eighteen were admitted to the higher local examinations of Cambridge and the University of London. Women were admitted to the degrees of the University of London in 1880, the same year in which Victoria University was chartered to grant degrees to men and women; in the following year women were permitted to take the examinations but not to proceed to the degree at Cambridge.

Secondary education for girls in England was thus promoted largely by private endeavor, and its standards were raised by the increased numbers of women who had a university training, and by the admission of girls to external examinations. These two factors tended to emphasize too rigidly the academic character of the work. The Bryce Commission of 1894 was the first Royal Commission to include women in its membership; the Commission recommended the appointment of women on the local education authorities to be created, and stated that the duty and interest of society required equal provision of secondary education for both sexes.

Full secondary education provided. The passing of the Education Act of 1902 made possible the establishment of secondary education at public expense; the same provision has now been made for girls as for boys. The Regulations of the Board of Education made but slight distinction between the curricula for boys and girls, though girls' schools are encouraged to provide practical instruction in domestic subjects. *The Report of the Consultative Committee on the Differentiation of Curricula between the Sexes in Secondary Schools* (1923) did not make any drastic recommendations for differentiation. The *Report* recommended that greater freedom be permitted, especially in girls' schools, in regard to the number of subjects and examinations; that more time be allowed for senior girls to develop their own individual interests; that more attention be given to æsthetic subjects; that there should be assimilation of girls' schools to those of boys in the teaching of certain subjects, e.g., mathematics, analysis and understanding of the logical content of literary works, games, and manual work; that girls be protected from physical fatigue and nervous strain, and especially from the pressure of examinations; and that the amount of homework be reduced and shorter school sessions be organized. A demand for more freedom and elasticity in the making of curricula for girls has developed in the last few years as a protest against the somewhat rigid requirements for the first school examination.[1]

Coeducation. Nor is there any widespread movement for coeducation; while there are mixed schools, most of these are to be found in localities that cannot support separate schools, and only a few are coeducational by faith in the principle. In 1928–29, of 1341 schools in England and Wales on the Board of Education's grant list, 374 were for boys and girls, 474 for girls, and 493 for boys. The total enrollment of girls in that year was 188,602, out of a total of 401,505. To these may be added 30,931 girls in efficient schools not on the grant list. The number in private schools is not available.

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[1] On the education of girls in England see Adamson, J. W., *A Short History of Education*, pp. 321 ff.; Burstall, S. A., *English High Schools for Girls* (London, 1907); Gadesden, F., in Roberts, *op. cit.*, pp. 82 ff.; Gardiner, D., *English Girlhood at School* (London, 1929); Reynolds, M., *The Learned Lady in England 1650–1760* (Boston, 1920); Woody, *op. cit.*, pp. 23 ff.; Zimmern, H., *The Renaissance of Girls' Education* (London, 1898); Clough, Bertha, *Memoirs of Anne Jemima Clough* (London, 1897); Raikes, Elizabeth, *Dorothea Beale of Cheltenham* (London, 1908); Shillito, E. H., *Dorothea Beale, Principal of the Cheltenham Ladies' College* (London, 1920); Ridley, A. E., *Frances Mary Buss and her Work for Education* (London, 1895).

In the United States

In the colonial period. The education of girls in the early colonial period was almost entirely in the home, where they were expected at any rate to learn reading (and possibly writing), for religious purposes mainly. Such education as was available outside the home was obtained in the dame schools, where they could learn only the rudiments of English. When the number of grammar schools increased, during the seventeenth century, there were but few instances where girls were admitted. At the Hopkins Grammar School in New Haven it was ruled, in 1684, that "all girls be excluded as improper and inconsistent with such a grammar school as the law enjoins and as is the design of this settlement."

It was not until late in the eighteenth century that there was any relaxation of this practice. In 1766 it was voted at Medford that the schoolmaster should teach the girls two hours each day, but after the boys had been dismissed. In 1790, at Gloucester a similar provision was made for the instruction of females, "as they are a tender and interesting branch of the community, but have been much neglected in the schools of this town." This system prevailed throughout New England, the girls being always taught apart from the boys; at Norwich (Connecticut) they were required to attend school from 5 to 7 A.M.

The headmaster of a school for girls in Portsmouth (New Hampshire) made the following comment in his diary, in 1773:

> Opened school, consisting of about 30 misses. Afterward they increased to 70 and 80; so that I was obliged to divide the day between them and one half came in the forenoon and the other in the afternoon. They were from 7 to 20 years of age.... I attended

> to them in reading, writing, arithmetic, and geography, principally. This is, I believe the only female school (supported by the town) in New England, and is a wise and useful institution.

Even Boston made no special provision until 1826, when the girls' high school was established, although from 1789 girls had been allowed to attend a boys' school for part time for reading and writing.

The effect of this exclusion is evidenced by the fact that, for a great part of the eighteenth century, not more than 25 per cent of the women who had occasion to sign legal documents were able to do so. This stimulus to the establishment of educational institutions for girls accompanied the development of the academies. The Moravians established a school for girls in 1750 at Nazareth (Pennsylvania), which was attended by pupils from different parts of the country.

Early schools for girls. In New Haven, in 1779, two Yale students during their vacation opened classes for young women, and one of these kept a school during his senior year in which he taught grammar, geography, composition, and rhetoric. Jedediah Morse had a similar school in New Haven in 1783 and 1785. Timothy Dwight, later president of Yale, opened an academy at Greenfield Hill (Connecticut) in 1785; this was followed by a female academy at Medford from 1789 to 1796, and in 1790 by a school for girls opened at New Haven by William Woodbridge, the "Columbus of Female Education," as he called himself. Coeducational academies were established at Leicester in 1784, and Westford in 1793; Bradford Academy, opened in 1803 as a coeducational institution, soon became exclusively a school for girls. The subjects taught in these academies included grammar, literature, rhetoric, composition, embroidery on satin, and the Bible. The academy opened at Byfield in 1818, by Joseph Emerson, was somewhat more ambitious, and taught philosophy and other advanced branches. Woody lists 177 studies offered in female seminaries from 1742 to 1871, covering academic, practical and fine arts, and music; the list includes ouranography, conchology, filigree, tambour, waxwork, grotto work, psalmody, soirée, conversation, and politeness.

The female high school. The development of public high schools, which began in 1821 with the establishment of the English High School in Boston, served, as was pointed out in an earlier chapter, as an impetus also to the establishment of schools at public expense for girls. In 1826 a girls' high school was accordingly opened, but was soon closed again for the curious reason that it was so popular that the accommodation was insufficient. A Female High School was established in New York, in 1826, by the High School Society organized through the influence of John Griscom. The progress of the high-school movement for schools on an equal footing for girls, now proceeded without abatement. Until 1840 separate schools were established for girls; thereafter, beginning at Lowell, coeducation became the more common and later the most usual practice.

These early beginnings in the provision of public secondary education for girls were accompanied by the efforts of a band of women who began, in the twenties, to agitate not merely for secondary, but for higher education for girls and women. First among these pioneers was Mrs. Emma Willard, who criticized the schools existing at the beginning of the century for their poor accommodation and lack of funds, which made them too small to provide for the adequate classification of pupils. Showy accomplishments rather than true learning were emphasized, and no external authority existed to set up standards. A suitable curriculum would include moral and religious instruction, and literary, domestic, and ornamental subjects.

> It is believed that housewifery might be greatly improved by being taught not only in practice but in theory. The ornamental branches... are drawing and painting, elegant penmanship, music and the grace of motion.

Female seminaries were important too, for the future of the teaching profession:

> If the women were properly fitted by instruction they would be likely to teach children better than the other sex.... What method could be devised so likely to effect this improvement [of common schools] as to prepare by instruction, a class of individuals, whose interest, leisure, and natural talents, would combine to make them pursue it with ardor?

Academies for girls. After teaching for a few years in Massachusetts and Vermont, Mrs. Willard moved to New York State in 1819, and in 1821, with the help of public and private assistance, she opened the Troy Female Seminary. There she put her theories of female education in practice, introduced the principle of student government, conducted teachers' meetings, and successfully trained teachers. The example of her work, her textbooks, and propaganda in general exercised a strong influence on the education of girls.

Similar was the influence of Catherine Beecher, who opened a school in Hartford in 1822, and of the Misses Z. P. Grant and Mary Lyon who became associated with the Ipswich Female Seminary in 1828, and made of it one of the best-known schools in the country. Gradually pupils under fourteen were not admitted, entrance requirements were raised, and attention began to be devoted to higher branches, including, besides English and sciences, the following subjects: ecclesiastical history, logic, natural theology, moral philosophy, analogy of natural and revealed religion, and evidence of Christianity. To these subjects there were later added calisthenics, vocal music, and mezzotint painting and drawing — subjects that seemed to be necessary, for according to a report of the school, "if the Ipswich young ladies returned with this natural joyousness undiminished, it was doubtless in part due to the enlivening power of calisthenics and vocal music."

The development of academies and seminaries of this type demonstrated at once the demand for higher education for girls, and the capacity of girls to take advantage of it. This led in turn to the movement, between about 1830 and 1840, for establishing colleges for women. The movement was more pronounced in the Southern States than in the North. While before 1850 Maine, Massachusetts, Ohio, and Illinois had one college each for women, Georgia had four, and Alabama, Missouri, North Carolina, and Tennessee each had two; and of thirty-nine such institutions established between 1850 and 1860, thirty-two were in the South. Many of these colleges were, however, of secondary grade only.

Colleges for women. The chief stimulus to the development of higher education for women came from the progress of Mount Holyoke Seminary, established in 1837, by Mary Lyon. This institution, although not chartered until 1838, was the first of a long list of women's colleges. Elmira College was chartered in 1855, Vassar followed in 1861 (opened in 1865), and Wellesley College in 1870. This period also was marked by the rise of coeducational colleges, or the admission of women to men's colleges and universities. Oberlin College admitted women from its start in 1833, and Antioch College in 1853; the University of Michigan opened its doors to women in 1870, and was followed by Illinois, Missouri, and California in 1871, Ohio State University in 1873, and Wisconsin in 1874; Utah (1850), Iowa (1856), Kansas (1866), Minnesota (1868), and Nebraska (1871) were coeducational from the date of their foundation.

Coeducation adopted. After the middle of the century coeducation virtually became the rule, except in some of the larger cities in the East. This practice had the important effect of raising the standards of the education of girls, and of obliterating distinctions between their education and that of boys. It is doubtful whether coeducation was adopted as the result of any carefully considered theory. A single school for both sexes was more economical than separate schools; the colleges and universities established a precedent in admitting both men and women; and, finally, coeducation was regarded as a logical outcome of democratic ideals.

Psychological rationalization followed later. With the increase of girls in the high schools the pressure of academic curricula and the lack of differentiation made itself felt, but the problems were attacked in the twentieth century in the same way as those brought about by the increased enrollment of boys. With the expansion of curricula and the wide introduction of household-arts subjects, the interests and needs of girls have been met. More recently, special provision has begun to be made for the guidance of girls through the development of a new function, that of advisers and deans of women.[1]

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[1] Goodsell, W., *Education of Women* (New York, 1923); Goodsell, W., *The Education of Women*, in Kandel, I. L. (ed.), *Twenty-Five Years of American Education*, pp. 335 ff. (New York, 1924); *Seventh Yearbook* of the National Association of Secondary School Principals (1923), pp. 115 ff. Woody, *op. cit.*, contains an extensive bibliography on the education of girls and women in the United States and elsewhere, II, pp. 481–589.

CHAPTER XI

THE PROBLEM OF SECONDARY EDUCATION

The new era. The first three decades of the twentieth century have ushered in a new era, and the problems of life and the problems of living have become more complicated than ever. There has never, in the history of education, been so much unrest, so much uncertainty, and so much debate as to ends and means, educational values, and the extension of educational facilities. Many factors have contributed to this unrest. The preceding chapters have shown that it is inaccurate to attribute this unrest to the World War, although this is sometimes done. The new Industrial Revolution, brought about by the application of science and the rapid development of machinery, had already begun before the close of the nineteenth century, and this was accompanied by all the difficulties that attend a rapid industrial and commercial expansion and the inauguration of a new economic régime. Similarly, the importance of education in its broadest implication for national welfare had also been recognized. Post-war conditions have intensified the complications that were arising from the new industrial age, and, despite the lessons of the war, have promoted a more intense national consciousness. More than ever the significance of education for the promotion of economic interests, and for national recuperation following the War, is being universally recognized.

Two other factors have entered into the post-war situation that were not so influential in the period preceding it, namely, the new and enlarged conception of the meaning of democracy, and the recognition of the worth of the individual irrespective of the social class into which he might be born. The notion of democracy to-day is colored not so much by its implication as a form of political organization as by its meaning for the whole of life — social, economic, and educational, as well as political. It implies not so much a guaranty of equality of suffrage as an obligation on all individuals to contribute of their best to the welfare of society, and at the same time an obligation on society to provide equality of opportunities for the fullest individual development.

From another point of view the same end has been achieved by the recognition, during and after the World War, of the worth of the individual. Nations have realized, as never before, the tremendous wastage of human resources and of individual talent that was wrought by a social and especially an educational system that did not provide for equality of opportunity. Hence, as we have pointed out, the movement for the *Einheitsschule* in Germany, which has for the time being been shelved; for the *école unique* in France, which is occupying the thought and attention of educators and publicists; and for the compulsory education of all adolescents up to the age of fifteen in England, which promises to be enacted by Parliament shortly. In the United States the same movement is represented by the remarkable increase in the enrollment of adolescents in the high schools. The movement is not, however, confined to these countries; echoes of it are to be heard in most countries of the world.

Democracy, the individual, and equality of opportunity. The new factors in the present situation are accordingly the fuller consciousness of the meaning of democracy, the recognition of the worth of the individual, and the consequent demand for equality of opportunity. This last factor may in time mean the extension of the period of compulsory education perhaps through the whole adolescent period — an extension which will parallel the upward development of compulsory elementary education in the nineteenth century. To all these forces must be added the increasing complexity of life due to the machine age, the rapid progress of inventions, the multiplicity and variety of the means of communication, and the consequent extension of human knowledge.

The general unrest engendered by all these forces finds its expression in a dissatisfaction with traditional practices, curricula, and methods in secondary education, which is coming very generally to be regarded as a Procrustean bed entirely unadapted to the increasing number of students now enrolled in secondary schools. Much light has been thrown on this maladjustment in the United States by the study of individual differences, and in England by recent but tentative investigations of secondary-school examination results; in France and Germany the eliminations in the secondary schools and the failures in examinations have not yet been made the subjects of intensive study.

Such is the general setting of the problem of secondary education to-day. That some form of secondary education for all is coming is clear; it is equally clear that such a movement implies a reconsideration of traditional values, with all its implications for the reorganization of the curriculum, the provision of variety of courses, and adaptation to individual differences. At the same time this movement raises a serious economic problem: To what extent can a country absorb a more highly educated group that has had the advantages of secondary education?

American *vs.* European conceptions of equality. The United States, which, as the previous chapters have shown, never has had a severely intellectual standard in secondary education, and which began a century ago to bend the conception of secondary education to suit the needs of an increasing clientèle, has attempted to solve the question on the principle of *suum cuique*, but the result of this principle in practice, with its system of equivalence of units and bookkeeping, has led to a confusion of values. The acceptance of the equivalence of subjects, the result of another principle — that the individual learns what he learns — recalls the criticism of Bentham's theory of happiness, that "pushpin is as good as poetry," and reduces education to mere school attendance. Professor Thomas H. Briggs has in fact stated that the United States does not have a philosophy of education; it has faith in education and is willing to pay for it, especially for buildings and equipment, but equality of opportunity must have a more solid foundation. Not only has American practice led to a confusion of values, but it also has led to an assumption of equalitarianism, which, despite the contributions of educational psychology, refuses to recognize the principle of selection in the intellectual field.

It is the question of selection which differentiates the European movement for equality of opportunity from the American. Confronted with the problem of organizing a system of education for all adolescents, France, Germany, and England are still hesitant because of the firm conviction that one of the tasks of an educational system in a democracy is to select and train the best minds for positions of leadership in all the political, social, and economic functions of modern society. One of the greatest fears that confronts those who are thinking not a little on the problem in these countries is the danger of leveling down, of catering to the average, and of developing mediocrity of standards. The problem is not simple, but at least this much has been achieved in theory, and to some extent in practice in France and England, that education through the secondary school and the university must be provided to students of ability, irrespective of class distinctions, and at the expense of society. Because society will profit as much as the individual, England and France are spending considerable sums of money annually for scholarships and maintenance grants, not merely for the so-called intellectual *élite*, but for *élites* in all social activities that demand trained intelligence. With the methods of selection neither country is yet satisfied; they are still perhaps somewhat narrowly academic and intellectualistic; but it is significant that those who are intimately concerned with the problem in France are suggesting the establishment of a Permanent Commission for Selection and Guidance as a possible solution. Even in the United States experiments have already begun to provide better educational facilities for abler students in the high schools and colleges of the land.

Result on the secondary school. The inevitable result of the two phases of the problem of secondary education — equality of opportunity, and selection — is the universal questioning and criticism of the tradition of the secondary school. It has been attacked because it has been narrowly selective on the basis of class, and therefore aristocratic. This charge must be admitted, but with the reservation that we have no knowledge of the number of poor boys of ability who have been aided, since the days when Pliny endowed a school at Comum, to secure secondary and higher education. It is equally true to assert that secondary education has been selective because of its narrow curriculum, but to transfer this charge to the subjects of this curriculum — Latin and Greek and the rest — and to call them "aristocratic," as is done by some educators in the United States, is sheer nonsense.

Another attack, that the secondary education has cultivated individualism and the competitive spirit instead of developing a broad sensitiveness to social problems, is equally true and is inherent in the practice of examinations as they are still widely conducted. From the psychological point of view the tradition has been subjected to the criticism that it has been maintained on a specious basis of disciplinary values and hence has been formal, but it is highly questionable whether the answer is a complete denial of disciplinary values and of the transfer of training — a theory that has been widely accepted, without a full realization of the results of Professor Thorndike's contribution to the subject, in the United States and nowhere else. Undoubtedly the extreme acceptance of the disciplinary theory did result in formalism, and in emphasis on the mechanics of the subjects rather than the content, but the history of secondary education reveals a constant protest against formalism and a demand for adaptation to contemporary needs.

Secondary education for status. The severest indictment, and the chief danger that menaces a satisfactory solution of the problem of secondary education, everywhere but in the United States, is the demand for secondary education for status — for the privileges that it confers. Secondary education is sought not for its own sake, or for a better preparation for social living, but for the certificates that open up certain careers to a limited few. This whole *Berechtigungswesen* not only warps the function of secondary education, and fills schools with what the French call *non-valeurs*, but carries with it to-day, as in Bismarck's days, the danger of cultivating a mass of *Hungerkandidaten* — an educated proletariat, well educated but educated in one direction only and unable to find a suitable niche in the economic world.

Hence the large number of unemployed secondary-school and university graduates in Central Europe; hence the realization in France that secondary and university education must be directed to the training of a variety of *élites*, and not merely the narrowly intellectual; hence the difficulty that has confronted England in providing new types of education for the adolescent because of an artificial value attached to the secondary-school certificates. Nor is the United States entirely free from the danger that secondary and college education is increasing the trend toward "white-collar" jobs.

Secondary education in a democracy. Democracies must accordingly come to terms with themselves and face the problems of increased education squarely. That the increasing complexities of modern society demand more enlightenment and a richer background of education than can be afforded by elementary education cannot be denied, any more than the fact that a far higher percentage of individuals than have had the opportunity hitherto are capable of profiting by an education beyond the elementary. Equally irrefutable is the statement that the very complexities that demand an enlightened public also demand enlightened leadership and a frank acceptance of the principle of selection in education. Politically all men may be equal, but it has not needed all the techniques of the latter-day psychologists to prove that men are not equal intellectually. The stability of democratic institutions does not depend on the mechanization of organizations to keep all individuals at the same level (such a conception of equality is specious even if it were possible), but on the development through education of a sensitiveness to the meaning and obligations of democracy. It must be admitted that this argument is not palatable to many leaders in the field of public education in the United States, and that the history of secondary education, since the establishment of the Republic, has been set against it in theory but with futile results in practice. The very increase of enrollments in high schools and colleges in the past fifteen years has led to a realization of the dangers of a false interpretation of equality in education.

At a meeting of the American Philosophical Society held on April 25, 1930, Dr. Frank Aydelotte, President of Swarthmore College, made the following statement:

> In education we must think of the individual and not of the mass. We have a truly democratic education if we give each individual the opportunity to do his best. If democracy could be construed to mean leveling down the best to the mediocre standard attainable by the average, then democracy would be foredoomed to failure. In my opinion democracy does not mean that, but an opportunity of developing in a democratic system of education all types of excellence to the highest degree to which they can be developed.[1]

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[1] Reported in *The Christian Science Monitor*, April 26, 1930.

A similar statement which excellently summarizes the democratic position on the question was made recently by President Hoover:

> Leadership is a quality of the individual. It is the individual alone who can function in the world of intellect and the world of leadership. If democracy is to secure its authorities in morals, religion, and statesmanship it must stimulate leadership from its own masses. Human leadership cannot be replenished by selection, like queen bees, by divine right or bureaucracies, but by the free rise of ability, character, and intelligence. Even so, leadership cannot, no matter how brilliant, carry progress far ahead of the average mass of individual units. Progress of the nation is the sum of the progress of its individuals. Acts and ideas that lead to progress are born out of the womb of the individual mind, not out of the mind of the crowd.... Popular desires are no criteria to the real need; they can be determined only by deliberate consideration, by education, by constructive leadership.[1]

Equality *vs.* equality of opportunity. The problems of equality of opportunity and selection are not new. They have been inherent from the earliest movements for democratic forms of government to the present, and two solutions seem to have been offered. The French Revolution, like the Revolution in Russia, eliminated the traditional secondary school entirely; in the United States the solution was not so drastic, but there has always existed an implicit antagonism to so-called "aristocratic" education, which finds its latter-day expression in a strong faith in providing school facilities, but a certain opposition to intellectual selection and in the popular distinction between the "highbrows" and the "lowbrows."

The other solution finds its expression in the movement for the *Einheitsschule* in Germany, the *école unique* in France, and secondary education for all in England, which in some respects looked at first like a demand of the hitherto unprivileged classes to secure the *same kind* of education that their privileged masters have hitherto enjoyed; the full implications of this movement have, however, now been realized. Obviously the first solution is impossible; the second solution implies the recognition of the principle of equality of opportunity, and the place of the selective principle on a democratic basis.

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[1] *New York Times*, April 16, 1930.

The question of aim. If secondary education for all is the probable tendency for the future, the question that immediately arises is, what shall its function be? So long as secondary education was primarily selective in character and for the few, it was governed by a number of aims that can no longer be accepted — preparation for college and university, preparation for leisure, cultural training in a narrow sense, or disciplinary training of the mind through the medium of a few subjects. A study of the history of the aims of secondary education, however, as expressed by leaders at different ages, reveals a conflict between their conceptions and the practices of the schools. Universally the chief aim of secondary education has been conceived by these leaders as the imparting of a liberal education for social ends, and irrespective of narrow specialization. Even Plato and Aristotle, who drew such an illiberal distinction between liberal and illiberal education, destined the liberally educated individual for social leadership.

The social aim was outstanding in Quintilian's statement that

> It is not a plodder in the forum or a mercenary pleader... that I desire to form, but a man being possessed of the highest natural genius stores his mind thoroughly with the most valuable kind of knowledge; a *man sent by the gods to do honor to the world* and such as no preceding age has known, a man in every way eminent and excellent, a thinker of the best thoughts and a speaker of the best language.

The same idea was repeated in a somewhat different form by Vittorino da Feltre:

> Not every one is called to be a lawyer, a physician, a philosopher,

> to live in the public eye, nor has every one outstanding gifts of natural capacity, but all of us are created for *the life of social duty, all are responsible for the personal influence which goes forth from us.*

The aim of secondary education during the Reformation in Germany was to prepare for *public service in Church and State*, and in England during the corresponding period schools were established to train scholars "in virtuous discipline, godly learning, and good and civil manners." That the subjects selected to secure these ends were narrow and restricted does not affect the present argument, which seeks to emphasize the permanence of the social motive for liberal education. The conflict that began in the seventeenth century, with the emergence of the scientific movement, turned ultimately on the question as to which subjects, the ancient or modern, were best suited as an educational preparation for contemporary life. Because science had developed sufficiently to provide an adequate content for school purposes, the ancients carried the day — partly because they were in possession, and partly on the plea of disciplinary training, an argument which was later to be used for the introduction of the sciences and of modern languages as well.

English emphasis on product. The eighteenth century in particular worshiped at the shrine of the individual, and left its mark on the early years of the nineteenth century. At its best the aim of liberal education was not defined in a vacuum. The neo-humanists, while they did not overtly emphasize the social aim in so many words, did stress training in the highest qualities of humanity (*Menschheit*). So Herder stated that his highest classes, through the study of *literæ humaniores*,

> understood through them what makes a man a man, what the gift of speech, reason, comradeship, sympathy for others, the influence on others cultivate and demand for the service of all humanity.

Herder's statement finds a parallel in Montesquieu:

> The first motive which should impel us to study is the desire to augment the excellence of our nature, and to render an intelligent being yet more intelligent.

Goethe also, who would educate "from the useful through the true to the beautiful," stressed the practical end of a liberal education:

> If a man can test doing by thinking, thinking by doing, he cannot go astray; and if he does go astray, he will soon find himself on the right way again.

The tendency of English writers on liberal education has always been to look at the product rather than at the means, and at the individual that should be the outcome of a liberal education rather than at its content, yet they have always had in mind the individual as a social being and as a member of society. Perhaps the richest and most fruitful expression of the product of a liberal education is the picture given by Cardinal Newman in his *Aim of University Training*, which, even though it is directed to the aim of higher education, has its applications for secondary education:

> But a University training is the great ordinary means to a great but ordinary end; it aims at raising the intellectual tone of society, at cultivating the public mind, at purifying the national taste, at supplying true principles to popular enthusiasm and fixed aims to popular aspiration, at giving enlargement and sobriety to the ideas of the age, at facilitating the exercise of political power, and refining the intercourse of private life. It is the education which gives a man a clear conscious view of his own opinions and judgments, a truth in developing them, an eloquence in expressing them, and a force in urging them. It teaches him to see things as they are, to go right to the point, to disentangle a skein of thought, to detect what is sophistical, and to discard what is irrelevant. It prepares him to fill any post with credit, and to master any subject with facility. It shows him how to accommodate himself to others, how to throw himself into their state of mind, how to bring before them his own, how to influence them, how to come to an understanding with them, how to bear with them. He is at home in any society, he has com-

> mon ground with every class; he knows when to speak and when to be silent; he is able to converse, he is able to listen; he can ask a question pertinently, and gain a lesson seasonably, when he has nothing to impart himself; he is ever ready, yet never in the way; he is a pleasant companion, and a comrade you can depend upon; he knows when to be serious and when to trifle, and he has a sure tact which enables him to trifle with gracefulness and to be serious with effect. He has the repose of a mind which lives in itself, while it lives in the world, and which has resources for its happiness at home when it cannot go abroad. He has a gift which serves him in public, and supports him in retirement, without which good fortune is but vulgar, and with which failure and disappointment have a charm. The art which tends to make a man all this, is in the object which it pursues as useful as the art of wealth or the art of health, though it is less susceptible of method, and less tangible, less certain, less complete in its result.

In discussing the meaning of culture or liberal education, it is usual to quote Matthew Arnold's definition that culture is "the knowledge of the best that has been said and done in the past," without any reference to the context in which it appears. It may be admitted that Arnold's vision did not embrace the potentialities of the sciences, and that he was limited by his own ignorance of the meaning of scientific training. At the same time the term of reference in his definition was social. After stating that "culture looks beyond machinery, culture hates hatred; culture has one passion, the passion for sweetness and light. It has one even yet greater! — the passion for making them prevail," and should be spread as widely as possible, he continues:

> It seeks to do away with classes; to make the best that has been thought and known in the world current everywhere; to make all men live in an atmosphere of sweetness and light, where they may use ideas, as it uses them itself, freely — nourished, and not bound by them. This is the *social idea*; and the men of culture are the true apostles of equality. The great men of culture are those who have had a passion for diffusing, for making prevail, for carrying from

> one end of society to the other, the best knowledge, the best ideas of their time; who have labored to divest knowledge of all that was harsh, uncouth, difficult, abstract, professional, exclusive; to humanize it, to make it efficient outside the clique of the cultivated and learned, yet still remaining the *best* knowledge and thought of the time, and a true source, therefore, of sweetness and light.

If Arnold's great opponent, Thomas Huxley, was not so pronounced in his stress on the importance of literary studies, the explanation is to be found in the attitude to the sciences in nineteenth-century England, an attitude against which Huxley felt himself called upon to protest at all times. If his definition of the liberally educated man errs on one side, as Arnold's did on the other, it is none the less important as a statement of one of the ends of a liberal education:

> That man, I think, has had a liberal education who has been so trained in youth that his body is the ready servant of his will, and does with ease and pleasure all the work that, as a mechanism, it is capable of; whose intellect is a clear, cold, logic engine, with all its parts of equal strength, and in smooth working order; ready, like a steam engine, to be turned to any kind of work, and spin the gossamers as well as forge the anchors of the mind; whose mind is stored with a knowledge of the great and fundamental truths of Nature and of the laws of her operations; one who, no stunted ascetic, is full of life and fire, but whose passions are trained to come to heel by a vigorous will, the servant of a tender conscience; who has learned to love all beauty, whether of Nature or of art, to hate all vileness, and to respect others as himself.

This apparently individualistic emphasis must be supplemented by another statement in which Huxley stresses the social aim:

> I take it that the whole object of education is to train the faculties of the young in such a manner as to give their possessors the best chance of being happy and useful in their generation.

German emphasis on leadership. German secondary education during the nineteenth century was so dominated by two aims — the political aim of training the right kind of leaders, and the aim of scholarship, which found expression in *Allgemeine Bildung* as the end of education — that the real purpose of a liberal education seems to have been lost. *Allgemeine Bildung* led to an attempt, which was burdensome on both teachers and pupils, to give an equal amount of training in all subjects, so that liberal education was lost in the amount of knowledge that the pupils had to acquire for examinations. Against this aim Paulsen protested:

> As long as this conception of all-round culture prevails and as long as the idea dominates that the individual learns and does nothing on which he will not be examined, so long can improvement in education not be expected. It can only be improved when the point of view has been generally accepted that all-round culture does not consist of a sum of knowledge acquired and ready for examination purposes, that it signifies a form of internal being corresponding to natural endowment and condition of living, and that such a form will not be made and completed externally but can only arise from within through growth. All that the school can do is to provide the stimulus, opportunity, and materials to the urge for growth; the school cannot create culture, but it can by overwhelming and overburdening the pupil with materials hinder the development of culture. The result is then half-education, that lamentable condition of the soul which has acquired a mass of content without the power of digesting it and of translating it into living capacities for experiencing.[1]

This statement of what liberal education is not may be supplemented by expressions from German writers who have seen what German education needs. Professor Aloys Fischer thus concludes the aim of educational reform to be:

> To permit the young individual to grow into a conscious and responsible participation in the living cultural process based on a clear appreciation of nature and of man, of his own people and its

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[1] Paulsen, *op. cit.*, II, p. 690 f.

place in the world, and on faith in a supernatural foundation of our life.[1]

Kerschensteiner stated the post-war need before the Federal Education Conference, held in 1920, as follows:

> Education in its narrow sense is that cultural enterprise of a society which seeks to introduce the pupil to his cultural heritage (religion, morals, knowledge, art, technical science, social manners and customs) in such a way that each according to the measure of his ability utilizes his peculiar cultural capacity for the ends of society in so far as he is able.

The French aim. One quotation, a statement by Henri Bergson, will suffice to explain the French point of view. In connection with the discussions that centered around the Bérard reform he thus defined the aim of French education:

> Unfortunately the essential problem in education is just the one most frequently forgotten before a curriculum is framed. "What is our object? What result do we wish to attain? What kind of men are we going to form?" This question undoubtedly admits of an answer that is good for all times and for all places. We wish to form a man with an open mind, capable of developing in more than one direction. We want him to be equipped with knowledge that is indispensable and able to add to his store other knowledge that he has been trained to acquire.... We must press as far as possible the productive power of the country. We must build up the greatest possible sum of knowledge in pure science and disinterested research. We must finally and above all maintain the French genius and strengthen all that there is of light within it to insure for it the brightest radiance throughout the world. This task can only be accomplished by a contact firmly established with classical antiquity.[2]

American statements as to aim. Secondary education in the United States was early characterized by an attempt to depart from traditional aims and concepts; liberal education, because it was regarded as aristocratic, ceased to be an issue as soon as efforts began to be made to multiply the subjects taught in academies and high schools in order to meet the needs of the individual. This attitude is well illustrated in Professor Inglis's statement, in his *Principles of Secondary Education* (1918), that "the terms 'culture' and 'cultural' are purposely avoided here because of their ambiguity in modern educational thought" and that "the indefiniteness and ambiguity of the term 'liberal' renders it profitless to consider the problem in such terms." He accordingly substitutes the term "individualistic-avocational aim," which "involves the preparation of the individual for those activities of life whose primary object and controlling purpose are personal development," to be supplemented by the social-civic aim and the economic-vocational aim to round out a full secondary education. This atomistic conception has led subsequent investigators to increase the objectives without end. The real need, however, is a genuine *terminus ad quem*, a comprehensive aim which will define the whole object of secondary education.

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[1] In Norrenberg, J., ed. *Die deutsche höhere Schule nach dem Weltkriege*, p. 29. (Leipzig, 1916.)

[2] *Revue de Paris*, May 1, 1923, pp. 17 f., quoted in Kandel, I. L., *Reform of Secondary Education in France*. (New York, 1924.)

Emerson, fearing that "our culture has truckled to the times — to the senses," that "it is not manworthy," saw that

> The great object of Education should be commensurate with life. It should be a moral one; to teach self-trust; to inspire the youthful man with an interest in himself; with a curiosity touching his own nature; to acquaint him with the resources of his mind, and to teach him that there is all his strength, and to inflame him with a piety towards the Grand Mind in which he lives. Thus would education conspire with Divine Providence. A man is a little thing whilst he works by and for himself, but, when he gives voice to the rules of justice, is godlike, his word is current in all countries; and all men, though his enemies, are made his friends and obey it as their own.

Emerson's definition of the object of education found an echo in President Eliot's definition of the cultivated man, as one of quick perception, broad sympathies and wide affinities, responsive but independent, self-reliant but deferential, loving truth and candor but also moderation and proportion, courageous but gentle, not finished but perfecting.

Common elements in these statements. It would be difficult to summarize these many-sided definitions of culture or a liberal education. One note, however, runs through them all — that it is the function of education to release something in the individual; to produce an inner change in the individual which would enable him to take his place in the world; which will fit a man, as Milton said in his own day, "to perform justly, skillfully, and magnanimously all the offices both private and public of Peace and War." If the terms "culture" and "liberal education" have fallen into disrepute, the reason is not to be found in definitions such as those that have been given, but in the attempt to secure them through a narrow curriculum of restricted and universally efficacious subjects. The terms have suffered at the hands of the *beati possidentes* — those teachers who were first in the field and looked askance at the intrusion of newcomers; and then from the intense and narrow specialization of teachers who failed to see education steadily and see it whole. It is perhaps significant that the leading exponents of liberal education have refrained, with some exceptions (Matthew Arnold and Thomas Huxley may be cited) to define it in terms of subjects.

Another reason for dissatisfaction with the terms "culture" and "liberal education" may be found in their connotation of external polish; in that "social ease and grace of speech," as Dewey says, "that enables a person to display his knowledge to good special effect." To this connotation may be added the further association of culture with leisure, with social class distinction, and with knowledge and information that have no utilitarian value. The distinction between culture and utility goes back to Plato and Aristotle, a distinction which, despite the statements of the social purpose of liberal education that have been cited, and despite its origin under different social and economic conditions, has persisted to the present. It is perhaps because of this distinction that American educational theory has gone to the other extreme in an attempt to justify the provision of vocational education in the high schools on the plea that it is cultural. This paradox, resulting in an endeavor to give vocational education as though it were cultural, has failed or is likely to fail in achieving either cultural or vocational training, for the technique underlying the one is general and the other is special.[1]

Dewey and the social factor. It has remained for Professor John Dewey to find a synthesis between culture and utility by reference to the social factor, which has always been prominent in the earlier statements on liberal education.

> From the broader point of view, culture may be defined as the habit of mind which perceives and estimates all matters with reference to their bearing on social values and aims. While it is opposed to the purely utilitarian (or practical in its narrow sense), this opposition is in behalf of a more universal use — namely, social service.[2]

Social service or social efficiency and its relation to culture he defines elsewhere:

> Social efficiency as an educational purpose should mean cultivation of power to join freely and fully in shared or common activities. This is impossible without culture, while it brings a reward in culture, because one cannot share in intercourse with others without learning — without getting a broader point of view and perceiving things of which one would otherwise be ignorant. And there is perhaps no better definition of culture than that it is the capacity for expanding in range and accuracy one's perception of meanings.[3]

[1] On a plea for the place of vocational education as a part of general education see Prosser, C. W., and Allen, C. R., *Have We Kept the Faith?* (New York, 1929.)

[2] Monroe, P. *Cyclopedia of Education*, s.v., *Culture and Culture Values.*

[3] Dewey, J. *Democracy and Education*, pp. 144 f. (New York, 1916.)

These statements have the merit not merely of again reconciling culture and utility, but of defining the end of education in social terms. At the same time it defines the scope of the content of a liberal education. "Everything that makes a man a man" is to be found not in a few favored subjects, but in all those interests and activities that are of social significance.

General *vs.* specific aims. The task still remains for the educator to distinguish between those that are general in character and those that are special. He will have to decide how far vocational education should form a part of general education, and how far one is to be subordinated to the other. Whether a successful vocational education can be given alongside of general education, without losing sight of its main purposes — the cultivation of certain specific skills — will have to be considered carefully. Certainly the attitude of employers in England and the United States is sufficiently pronounced to give adequate guidance. The attitude of the former will be found in the recent reports of the Committee on Education and Industry; that of the latter is represented in a recent address of Mr. Frank B. Jewett, vice-president of the American Telephone and Telegraph Company, to the members of the Department of Superintendence:

> We have relatively little use for detail technique acquired at the expense of more fundamental mind training. Business itself is quite competent to provide the details of training in the technique of its operations. True, it may be of some help to us in some directions to have boys and girls enter our ranks with a rudimentary knowledge of certain kinds of technique.... We do quarrel with you if you carry this kind of training too far in amount of diversity and so deprive your product of the capacity to advance in after-life for lack of suitable training of the mind, which you of the secondary schools alone have the opportunity to give.[1]

On the basis of Dewey's statements, a case can be made out for the study of vocations and their place in the economic organization of contemporary society. Nor is this the only study which has been neglected in the past for which room must be found. Music and art must find their place in the secondary school, side by side with the traditional curriculum of languages, sciences, mathematics, history, and geography. A new significance and a modern justification must be found for all these. They are, it may be claimed, valueless as subjects — their value lies in the result, in the inner change produced in the individual. The new theory of curriculum-making in Germany, which would measure all subject and content values in terms of their contribution to *Deutschtum*, represents an experiment in cultivating "the capacity for expanding in range and accuracy one's perception of meanings." In other words, there is need of an integration of the curriculum, which can be sufficiently elastic to meet individual needs and capacities even, it may be said, without including foreign languages, round a clearly motivated social purpose.

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[1] *School and Society*, XXXI, p. 419. (March 29, 1930.)

The measure of the value of a subject for education in this sense, however, will depend also on its potentiality for expanding the perception of meanings. How many of the two hundred and fifty subjects and branches of subjects taught in the high schools of the United States would be retained if tested by this measure it is not necessary to discuss here. The danger which is likely to attend a curriculum that is not integrated is that subjects will be reduced to a collection of facts or knowledge for its own sake, or to the mere mechanics underlying them, acquired for examination purposes, while the inclusion of subjects that have no breadth or that are taught without vision and imagination will lead, as it has already done in the United States, to the cult of primary facts alone.

Place and importance of the teacher. Fundamentally, however, the success of secondary, as of any other education, does not depend either on definitions of aims, statement of objectives, or discussions of subject values, but on the academic and professional preparation of the teachers, a preparation which must be inspired by the same breadth of aims as secondary education itself. This statement, admittedly a platitude, does not suffer from reiteration, for the provision of secondary education for all raises the question of an adequate supply of teachers for the increased enrollments. Professor Charles H. Judd has already stated his doubt whether an adequate supply of capable teachers can be obtained even to-day in the United States.[1] If there is any basis for this doubt, then there is little hope for the great adventure upon which democracies are embarking. Nothing more can be done here than to raise the problem, as one to be faced, as it has not yet been faced in any country; an issue which may, if not faced squarely and successfully solved, make the difference between schooling and education. Secondary education for all will make greater demands on teaching ability than secondary education for the few, selected on the basis of ability or drawn from cultured homes. Nor can the problem be solved by the cult of methods and devices, by the elaboration of objectives and techniques, for in education there are no short-cut methods. Culture by its definition implies something that is cultivated, something that matures, something not finished but perfecting.

It is on the teachers then that will rest the burden, as the burden of successful education has always rested, not primarily of inspiring pupils with their own interest, faith, and enthusiasm in some special field of study, but of seeing the significance of that field for the development of the pupil's whole personality.

Fourfold aspect of all secondary education. Secondary education should develop an appreciation of the meaning of the common experiences of life in the light of their origin, their value for the present, and their significance for the future; it should stimulate up to a certain stage the symmetrical development of common interests; it should cultivate a knowledge of and interest in the great documents of the human spirit. It is as essential to-day as it was in the best days of Greek education to recapture the meaning of personality in its fourfold aspect — physical, social and moral,[1] æsthetic, and intellectual — which since the Greek period have never been harnessed together in an all-round education. These four aspects define in turn the scope of the curriculum, which should find a place for the literary and scientific, social and moral, æsthetic, and physical activities that are characteristic of the major interests of life. To the Greeks again one would have to turn to see how each of these groups of activities was interpenetrated with the spirit of the others — the intellectual with the æsthetic and moral, the æsthetic with the moral and intellectual, the moral with the æsthetic and intellectual, and the physical with the moral and æsthetic — all combining together to produce an integrated social personality. The activities themselves are, however, only means; sound knowledge and solid information are essential, but they are essential only if they are dynamic. The real measure of a successful education is the extent to which it cultivates judgment and discrimination, good taste and sensitiveness to beauty, moderation and tolerance, ideals and convictions, open-mindedness and wonder (for through wonder man began to philosophize), the power of mental enjoyment, and abiding intellectual interests (for "the more good things we are interested in, the more ardently we live," said Bacon). What percentage of the increased number of adolescents to whom the enlarged provisions of secondary education will open the doors of opportunity can attain such ends still remains to be discovered by skillful organization and still more skillful teaching. One may conclude with Vittorino da Feltre, however, that, even if every one does not have "outstanding gifts of natural capacity," "all of us are created for the life of social duty, all are responsible for the personal influence which goes forth from us."

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[1] In his *Unique Character of American Secondary Education.* (Boston, 1928.)

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[1] If the religious aspect has not been included here, it is because in two of the countries, France and the United States, that have been the subject of the present study, it has ceased to be an issue in the public schools, without, however, being neglected by other social organizations. Nor does the practice in English and German secondary schools carry any strong convictions as to the effectiveness of religious instruction as a part of the ordinary routine of the school curriculum. For another side of the picture the student is referred to Norwood, C., *The English Tradition of Education*, chaps. III, IV, and V. (London, 1929.)

APPENDIX

QUESTIONS AND REFERENCES

CHAPTER I

GREEK EDUCATION

1. Consider the relations of social, political, and economic activities to secondary education.
2. What was the Greek conception of personality and its relation to education?
3. What was the Greek basis for curriculum-making?
4. What was the Greek conception of liberal education or culture? How did Isocrates define the educated man?
5. Discuss Plato's theories on the social function of secondary and higher education. Trace the influence of these theories in the history of secondary education.
6. What was Aristotle's attitude on liberal and vocational education? To what extent did his view affect subsequent theories of secondary education?
7. What is the relation of Greek views on education to the present?
8. When and why did formalism set in in Greek education?

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CHAPTER II

ROMAN EDUCATION

1. Contrast Greek and Roman life and character, and the resulting differences in education.
2. What was the relation of Roman education to public life?
3. What was the Roman conception of personality and its relation to education?
4. Was Roman education liberal or vocational, academic or practical?
5. What was the Roman conception of the educated man?
6. What factors made Roman education formal?
7. What was the permanent contribution of Rome to education?

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CHAPTER III

THE MIDDLE AGES

1. What was the attitude of the early Christian leaders to the study of classical literature?
2. Discuss the purpose of secondary education in the middle ages.
3. What was the conception of liberal education in the middle ages?
4. How were secondary schools established in the middle ages? What types of schools arose?
5. Trace the development of the Seven Liberal Arts.

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CHAPTER IV

HUMANISM AND EDUCATION

1. Consider the social and other changes that underlay the movement known as the Renaissance.
2. What was their bearing on and relation to the aims of education?
3. What were the dominant educational aims of the Renaissance period?
4. What was the meaning of liberal education?
5. Contrast the attitude to Humanism in Italy and Northern Europe.
6. How was the curriculum modified and related to meet the new aims?
7. What types of schools were developed?
8. Contrast the secondary schools of England and Germany at this period.
9. What was now meant by the educated man, personality, individuality?
10. What was the relation between the individual and public or social life, between the individual and the State?

11. Discuss the status of the teacher at this period.
12. To what extent did the humanistic secondary school fail to meet the needs of all social groups?
13. How can the rise of formalism at the close of the sixteenth century be explained?
14. Consider the effect of the Reformation on secondary education in Germany and England.
15. Discuss the supply of secondary schools in colonial America.
16. Was the Latin grammar school modified in any way when transplanted to colonial America?
17. Trace the changes in college entrance requirements and their effects on secondary schools in colonial America.
18. To what extent can the colonial grammar school be considered as the origin of American secondary education?

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CHAPTER V

THE EARLY SCIENTIFIC MOVEMENT

1. Trace the development of the scientific movement and its connection with the Renaissance.
2. How do you account for the predominance of the classics as compared with sciences?
3. Consider the relations of the secondary schools of the sixteenth and seventeenth centuries to the social and practical needs of various social and economic classes.
4. From what sources did the protests against the classical curriculum come?
5. What types of literature and of schools developed as a result?
6. Discuss the different types and extent of academies.
7. Trace the influence of the education of the courtier on broadening the conception of secondary education.
8. Discuss the development of modern subjects in the secondary schools in the seventeenth and eighteenth centuries.
9. To what extent do the Utopias reflect educational conditions?
10. Trace the rise of interest in the sciences and their place in the progress of civilization.
11. How can the survival of the classical school be explained in the light of protests against them in the seventeenth and eighteenth centuries?
12. How was the concept of liberal education affected by the development of modern subjects?

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CHAPTER VI

FRANCE

1. What is the conception of a liberal education in France?
2. To what extent is French secondary education democratic?
3. What were the causes for the development of differentiation of courses in France?
4. How do you account for the return to the classics in France?
5. Compare the theories of secondary education during the period of the Revolution with those of post-War France.
6. How does French secondary education illustrate the principle of an education of the élite?
7. Discuss the movement for the *école unique*.
8. Compare the preparation of secondary-school teachers in France with that in the United States.

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Chapter VII

Germany

1. What was the significance of the Neo-humanistic movement?
2. What causes led to the revival of the classics in the eighteenth and nineteenth centuries?
3. What was the effect of the Neo-humanistic movement on the teaching of the classics?
4. Trace the beginnings of state control over secondary education in Prussia.
5. What was the relation between Neo-Humanism and the German revival after 1806?
6. Trace the rise of a secondary-school teaching profession.
7. Discuss the influence of Neo-Humanism on the revival of secondary education in England.
8. Trace the rise and development of differentiated types of secondary schools in Germany.
9. Trace the changes in the conception of liberal education in Germany.
10. To what extent has secondary education in Germany been selective?
11. Discuss the rise and progress of the training of secondary-school teachers in Germany.
12. Discuss the post-War changes in German secondary education and compare with the pre-War system.
13. Trace the influence of the *Jugendbewegung* in German education.
14. To what extent has German secondary education been democratized? To what extent is it selective?
15. Trace the history and development of secondary education for girls from the beginning of the nineteenth century.

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CHAPTER VIII

ENGLAND

1. What were the characteristics of secondary education in the eighteenth century?
2. Compare the revival of secondary education in England with that in Germany at the beginning of the nineteenth century.
3. Discuss the contributions made to the reform of education by predecessors of Thomas Arnold.
4. What was the contribution of Thomas Arnold to English secondary education?
5. How can the survival of the classics in England in the nineteenth century be explained?
6. Discuss the causes for the increase of secondary schools in the nineteenth century.
7. What was the state of secondary education in England as revealed by the reports of the Commissions between 1860 and 1870?
8. Trace the rise of popular secondary education in the last quarter of the nineteenth century.
9. Discuss the movement for the modernization of secondary education and the introduction of modern subjects.
10. What was the condition of secondary education at the close of the nineteenth century as revealed by the report of the Bryce Commission?
11. Trace the rise of the system of public secondary education since 1900.
12. What are the characteristics and the contribution of the "Public School"?
13. Discuss the relations of the central authority for education to the secondary schools.
14. To what extent and how is secondary education standardized?
15. Discuss the movement for the expansion of post-primary education, and for the education of the adolescent.
16. Compare the preparation of secondary school teachers in England with that of German and French teachers.
17. What is the English conception of secondary education?

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CHAPTER IX

UNITED STATES

1. Trace the development of academy in the eighteenth century and its contribution to American secondary education.
2. Trace the development of the high school as a part of the public school system.
3. Discuss the development of the aims of secondary education in the United States.

4. Discuss the rise and development of standardizing agencies and their influence on secondary education in the United States.
5. How have the development and changes in social demands affected the development of secondary education?
6. Trace the changes in the meaning of liberal education in the United States.
7. What were the contributions (*a*) of the Committee of Ten, and (*b*) of the Committee on College Entrance Requirements to the development of secondary education?
8. What are some of the factors that have led to a new conception of the aims and purposes of secondary education in the United States?
9. In what respects does the problem of secondary education in the United States differ from the same problems elsewhere?
10. Trace the introduction and development of any of the secondary school subjects in the American high school.
11. Trace the relations between the elementary and the high school.
12. Give an account of the development of the junior high school.
13. Trace the relations between the high school and the college.
14. Give the history of the certification of high-school teachers.
15. Compare the status and training of secondary-school teachers in the United States, and in England, Germany, and France.
16. Discuss the fundamental differences between the secondary schools in the United States and England, Germany, and France.
17. Compare the standards of attainment in any secondary-school subject in the American high school and in England, Germany, and France.
18. Discuss the statement that universal secondary education inevitably means a lowering of standards.
19. How has the character of the high school changed in the past twenty-five years? What have been the chief influences affecting these changes?
20. To what extent is the progress of secondary education hampered by traditional survivals?
21. Is the development of an intellectual *élite* compatible with a system of universal secondary education?
22. Discuss the statement that the chief defects of American secondary education are due not to the basic principles on which it is based but to the neglect of adequate teacher preparation and distribution.
23. What was the significance of the period of unrest in secondary education in England, France, Germany, and the United States at the close of the nineteenth century? How was the unrest solved?
24. Give an account of the democratization of secondary education in the United States.

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CHAPTER X

THE EDUCATION OF GIRLS

1. Trace the history of secondary education of girls in Germany, France, England, or the United States in the nineteenth century.
2. Discuss the stages in the development of secondary education of girls.
3. Discuss the rise and development of coeducation in the United States and its status in other countries.
4. Discuss the effects of the changes in the status of women on the development of secondary education.

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